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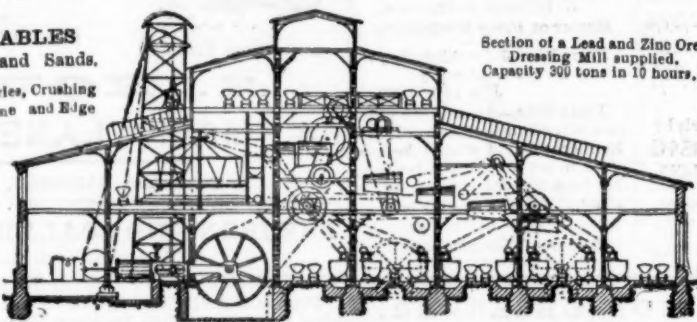
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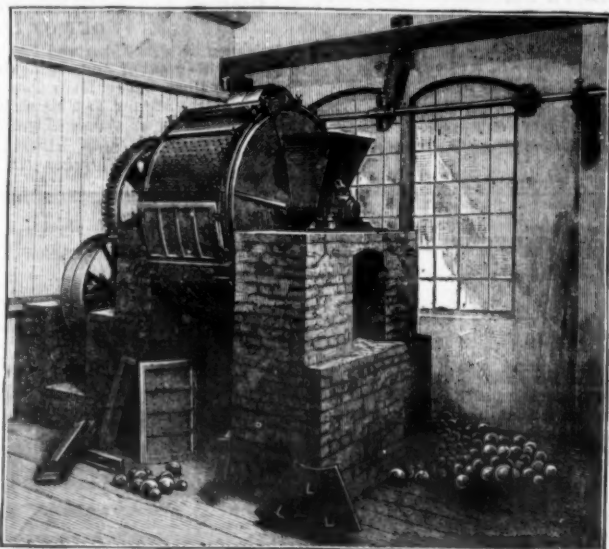
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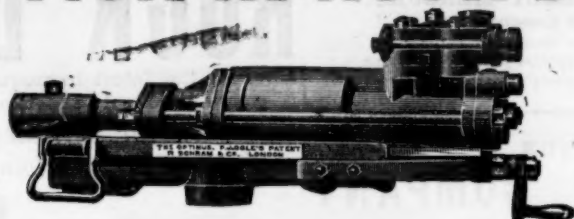
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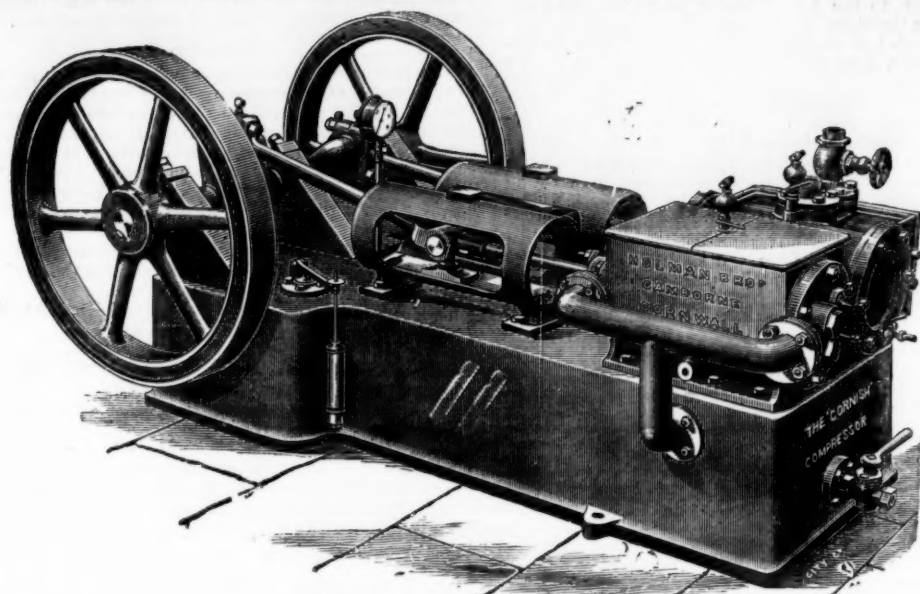
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At Botallack Mine, St. Just, Cornwall, **TWELVE MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** drove, sunk, and rose **288 FATHOMS** in **12 MONTHS**, equal to five times the Speed of Hand Labour

At Wheal Grenville Mine, Camborne, Cornwall, **SIX MEN** with **TWO** new Patent **CORNISH ROCK DRILLS** started from the **150 FATHOMS** level and put up in **EIGHT MONTHS** a **11 FEET** by **5 FEET PERPENDICULAR RISE 46 FATHOMS 5 FEET 6 INCHES**, and about midway drove **1 FATHOM 5 FT.** No communication of any kind was effected until holing to the Shaft brought down from surface.

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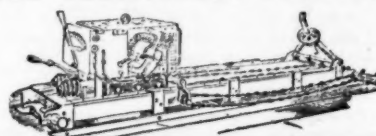
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Specially devoted to Cornish Mining, upon which it contains the fullest and most reliable information published. It is the only eight-paged newspaper printed in the Mining Division of Cornwall.

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AWARDS: CRYSTAL PALACE, 1890; TASMANIA, 1891; KIMBERLEY, 1892.

CONCENTRATION.

The Clarkson-Stanfield Concentrator (Limited).

In the CLARKSON-STANFIELD process of Concentrating Refractory and Complex Ores no water is required; dust is reduced to a minimum; the loss of Mineral through water-borne Slimes is obviated.

OUTPUT $\frac{1}{2}$ TO 2 TONS PER HOUR, ACCORDING TO SIZE OF MACHINE.

CONCENTRATOR TO BE SEEN IN OPERATION AT THE COMPANY'S ONLY ADDRESS

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The Machine is superior to Sieves for Sizing Homogeneous Substances, such as Emery, Sand, and Powders, and may be used to great advantage in the preparation of Ochre.

N.B.—The owners of the Carndochan Mine, near Bala, North Wales, will, by arrangement, show their CLARKSON-STANFIELD plant working on a Refractory Low Grade Gold Ore.

NEW PATENTS.

LIST of APPLICATIONS for New Patents relating to Mining Metallurgical, Engineering, Railway and kindred matters, specially compiled from official sources for the "Mining Journal" by Messrs Rayner and Company, Patent Agents, 37, Chancery Lane, London, W.C., who will forward all information regarding them free on application.

- 1097 William Bateman Chrichton, Sunbridge Chambers, Bradford.—Improvements in steam engines.—June 4.
- 1098 John Eaton, 27, Newry Street, Holyhead.—Improvements in marine steam engine governors.—June 4.
- 1099 John Thom, 15, Water Street, Liverpool.—Improvements in steam generators.—June 4.
- 1090 John Schofield, 39, Oxford Street, Werneth, Oldham.—Improvements in steam boilers.—June 4.
- 1095 August Dauber, Barmen, Germany.—Improvements in continuous working recuperative gas furnaces.—June 4.
- 1095 Siemens Bros. and Co. (Limited), 35, Southampton Buildings, Chancery Lane, London.—Improvements in apparatus for working railway switches and signals by means of electrical energy.—June 4.
- 1098 Robert Baird, 3, Springfield Lane, Kingston, Glasgow.—Improvements in combined smoke-tube and water-tube steam generators.—June 5.
- 1097 Ewald Fischer, Emil Klein, and Franz Mahlstadt, 23, Claman Street, London.—Improved method for the extraction of precious metals from their ores.—June 5.
- 1094 George Gatton Meluish Hardingham, 191, Fleet Street, London.—An improved method of treating tailings and similar residues with a view to the extraction of the precious metals.—June 5.
- 1094 Gustave Defosse, 70, Chancery Lane, London.—Improvements in and relating to re-use-consuming furnaces.—June 6.
- 1091 William Outterston Wood, 77, Chancery Lane, London.—Improvements in lamps especially applicable as a means for detecting the presence of gas in mines.—June 7.
- 1095 Albert Silberman, 315, High Holborn, London.—Improvements in smoke-consuming apparatus for locomotives and other boilers.—June 8.
- 1098 Edward Jordis, 18, Buckingham Street, Strand, London.—An improved method or process for obtaining metals or metallic alloys by electrolysis.—June 8.

SPECIFICATIONS PUBLISHED.

5930, Automatic Electric Railway Signal Company, railway signalling, 1894; 11,549, Blake, steam generators, 1894; 12,929, Embleton and Gosop, crushing ores, &c., 1894; 12,966, Ross, laying dust in coal mines, 1895; 13,732, Stirling, steam boilers, 1894; 14,458, Stockheim and Strohbeck, railway train indicator, 1894; 14,481, Smith, W. and W. G., steam generators, 1894; 7734, railway joints, 1895.

The above specifications published may be had of Messrs. Rayner and Co., 37, Chancery Lane, London, at 10d. each, including postage.

JOINT-STOCK COMPANIES.

NEW REGISTRATIONS.

THE following are among the joint-stock companies registered at Somerset House since our last notice:—

- Broad Arrow Gold Company (Limited).—Registered by William Steward, 2, Faraday Mansions, W., with a capital of £20,000 in 50 shares. Object: To acquire by purchase or otherwise any lands, mines, mining and water rights, grants, leases, claims, concessions, or other property; to develop and turn to account the same in such manner as the directors deem expedient in the interests of the company, as miners and smelters, and the general business of a metallurgical company.
- New North Wales United Mines (Limited).—Registered June 13, by A. J. Speechley, 112, Cannon Street, E.C. Capital £100,000, in 100,000 shares. Object: To acquire by purchase or otherwise any mines, mining and other rights, grants, leases, claims, concessions, properties, &c., situate in North Wales or elsewhere, and to get, crush, smelt, refine, prepare for market, and generally deal with mineral substances and metals of every description; and to carry on the business of a metallurgical company in all or any of its branches.
- Kalgurli Gold Mines (Limited).—Registered June 14, by Messrs. Ashurst, Morris, Crisp, and Co., 17, Turgerton Avenue, E.C. Capital £100,000, in 100,000 shares. Object: To adopt and carry into effect an agreement expressed to be made between D. Lindsay, of the one part, and the company of the other part, for the acquisition of gold and other mines, mining rights, grants, leases, claims, concessions, &c., in Western Australia or elsewhere; to develop and turn to account the same in such manner as the company shall see fit, and to carry on the business of a mining, milling, smelting, and metallurgical company in all its branches.
- Mario Rose Gold Mining Company (Limited).—Registered June 14, by Stedman, Van Praagh, Sims and Company, 22, Old Broad Street, E.C. Capital £175,000, in 175,000 shares. Object: To acquire a certain gold mining property known as Anderson's Brook, situate on the farm Vogelstruisfontein, Witwatersrand, South Africa, in accordance with an agreement expressed to be made between the Leslie Syndicate (Limited) of the first part, and this company of the other part; to develop and turn to account the same, and to carry on the business of mining, milling, and smelting company in all its branches.
- Grootfontein Exploration Company (Limited).—Registered June 14, by Inge, Holmes and Sons, 70, Threadneedle Street, E.C. Capital £125,000, in 125,000 shares. Object: To adopt and carry into effect an agreement expressed to be made between Ernest Wood, P. L. Smith, Charles J. Tapp, and Herman Landau (referred to as "the syndicate") of the first part, and this company of the other part, Objects: To acquire any freehold, leasehold, or other farms) properties, mining, water, or other rights in Africa, or elsewhere, and to develop and turn to account the same in such manner as the company shall deem expedient.
- Crimp Manganese Bronze Company of Great Britain (Limited).—Registered June 14, by G. T. Brownbridge, 33, Cornhill, E.C. Capital £50,000, in 50,000 preference and 25,000 deferred shares of 1s each respectively. Object: To adopt and carry into effect an agreement, the parties to which are not named, and to carry on business as manufacturers and workers of, and dealers in, bronze and other metals or metallic alloys, also as metallurgists, miners and smelters, civil, electrical, marine, and mechanical engineers, &c., in all or any of their respective branches.

CONTRACTS OPEN:

FOR MINE, QUARRY, RAILWAY, AND ENGINEERING WORK, STORES, &c.

* We shall be obliged by being promptly placed in possession of particulars regarding contracts open for competition, and of the results of successful tenders. In the latter case contract prices should be given.

The date given is that by which tenders must be delivered, in nearly all cases further information can be obtained on application at the addresses given. In applying for such the name of "The Mining Journal" should be mentioned as the original source of the information, concerning which further particulars are required.

HOME CONTRACTS.

Various Railway Stores June 16 (London, E.C.).—For the supply and delivery of wood screws, nails, &c., leather hides, belting, &c., galvanised corrugated and plain sheets, canvas, &c., and kodallies, phowrals, shovels, &c., for the East Indian Railway Co., as per specifications and drawings to be sent at the office. Tenders are to be sent to Mr. A. P. Dunstan, secretary, Nicholas Lane, London, E.C. The company reserves to itself the right to divide the order, also to decline any tender, without assigning a reason. For each specification a fee is charged—viz. for nails, wood screws, &c., leather hides, belting, &c., galvanised, corrugated, and plain sheets, and canvas, &c., £ 1s.; and for the kodallies, phowrals, and shovels, 10s. 6d., which cannot under any circumstances be returned.

Bridgework and Buffers, June 25 (London E.C.).—For the supply of (1) about 80 tons steel bridgework, (2) 60 sets flexible buffers, for the South Indian Railway Company (Limited). Specifications and forms of tender may be obtained at the company's office. Tenders, addressed to the Chairman and Directors of the South Indian Railway Company (Limited), and marked "Tender for Bridgework," or as the case may be, must be left with Mr. Henry W. Notman, managing director, 55, Gracechurch Street, London, E.C.

Coal, June 24 (London).—For the supply of 150 tons of good Scotch coal, free from slack, to be weighed on the public council, Ballieborough, and stored in the workhouse free of expense, for the guardians. The delivery must commence on the 27th inst., and terminate on September 24. To order by 24th inst. Mr. Thomas Clarke, clerk.

Earthwork, July 23 (Cairo).—Tenders will be received at the Secretariat of the Egyptian Railway Administration at Cairo up to July 23 at noon for earthwork, masonry, pitching, buildings, and other works for the line from Khat-Zat to Chabas. Payments are guaranteed, and will be made by the Commission of the Public Debt, Egypt. Conditions, general and technical, and description of works, may be seen during office hours on application to Lieutenant-Colonel Western, Broadway Chambers, Westminster, S.W.

Engine Crankshaft (Aulley, Staffs).—For taking out engine crankshaft and replacing with new one (now lying in engine room), making all necessary alterations to same; also to take out spur gear and replace with new cast-iron wheels with helical teeth, pump wheel to be increased in diameter, and piston wheel reduced in diameter, for the Aulley Urban District Council. Specifications and further particulars may be obtained from Mr. John J. Nelson, clerk of the Council, Kington.

SOUTH AUSTRALIAN LETTER.

(FROM OUR OWN CORRESPONDENT.)

ADELAIDE, MAY 15.

THERE are indications of an approaching revival in mining throughout Australasia, and in which our colony is likely to participate. The recent discovery of Mr. Ashcraft, by which the refractory sulphide ores of Broken Hill and other of the Barrier Mines can be successfully treated, means a return of prosperity in that direction, and a renewed lease of life to the silver mines for an indefinite period. You will probably, before this letter reaches you, have learned as much as we know about the process, but to give a brief description of it, the ores are crushed and roasted, and the zinc having been rendered soluble, is then subjected to the leaching process, and afterwards precipitated in a metallic state by means of electricity. The residue from the leaching is smelted in the ordinary way. The saving of the zinc in a marketable form is a matter of importance, as it is found in these ores in about an equal proportion with the lead, than which it has a much higher value. Other processes have been tried on the sulphide ores with more or less success, and it yet remains to be seen by which they can be most effectively and economically treated.

Mr. R. H. Hancock, the general superintendent of the Moonta and Wallaroo Mining and Smelting Company (Limited), is the inventor of an improved jigging machine, and some months ago he began to experiment on the sulphide silver-lead and zinc ores with his jigger. It has now been adopted on the South Broken Hill Mine and on Block 14, where for some time it has been used with so much success as practically to extract from the ore nearly all that is worth saving. Mr. Hancock states that the sulphide ores can be very profitably treated by his process, which is purely mechanical, and the machines are of sufficient capacity and power to put through 1000 to 2000 tons per week at a very small cost. On the Moonta Mine the total cost of treating crude copper ore, including everything but the mining and smelting, is only 1s. 4d. per ton.

Inventions bearing on mining in one or other of its branches are fast multiplying in Australia, and this colony is taking no inferior position in the rank of inventors. You have already had a description of Hayercraft's gold extraction process. Since then another has been patented which claims to save 90 per cent. of the gold contained in almost any description of stone. The inventors are Messrs. Penny and Richardson, and the process is chiefly mechanical, the only part not so being the use of mercury for amalgamation. It consists of an upright frame in which are fixed five large copper pans one above another, and having an indentation or rille a few inches below the rim for

below, the pressure being regulated by a clever contrivance. The lower rollers are four in number—two pairs—which travel round in a very strong stationary iron pan. They are about 2 feet 9 inches in diameter and narrow, running in grooves, at a considerable rate of speed. Scrapers fixed in the pan turn the small stones into the grooves so as to ensure the perfect pulverisation of the ore. The weight of the two pairs of lower rollers is 2 tons, and when that of the upper pair—30 cwt.—is allowed to press on them with the pan also, the crushing power is very great. A stone-breaker first reduces the material to about the size of road metal, which is carried up by an elevator to the top of the crusher; the upper pair of rollers crushes the stone to the size of peas or shot, and the lower pair grinds it if required almost as fine as seconds flour—to pass through a sieve of 6625 holes to the square inch. From the bottom the crushed material is again passed up to the "separator" or sieving machine, and all the coarser particles are recrushed. In my presence, 1 ton of the hardest quartz was crushed in 15 minutes, and passed through a sieve of 2500 holes to the square inch. The engine required to work this machine is only 10 horse-power. The crusher is enclosed in a casing of strong iron plates, and its cost, made by Messrs. G. E. Fulton and Co., is £500.

The length of this letter leaves but little room for an account of mining, but that shall form the subject of another letter soon. We are still progressing in our gold mining, though not so well as could be wished. A few thousand pounds would help to bring several good mines here to the paying point.

THE EFFECT OF ARSENIC ON STEEL.

By JOHN EDWARD STEAD, F.I.C.

(Continued from Page 702.)

No. II. SERIES.

ARSENICAL (0.14 per cent.) (C. = 0.20 per cent.).

Gauge in Inches.	Torsions in 8 inches.	Bends at Right Angles.	Breaking Weight in Pounds.	Remarks.
0.40	30	3	168	Poor
0.50	13	3	279	Only moderate
0.60	90	3	390	Fair
0.71	85	4	495	Very fair
0.85	80	5	762	Good
Average	59.6	3.6	419	

NORMAL.

Gauge in Inches.	Torsions in 8 inches.	Bends at Right Angles.	Breaking Weight in Pounds.	Remarks.
0.40	30	3	195	Poor
0.50	13	3	300	Moderate
0.60	80	3	390	Fair
0.72	74	4	495	Fair
0.85	74	4	618	Fair
Average	54.2	3.5	400	

No. VI. SERIES.

ARSENICAL (0.13 per cent.) (C. = 0.10 per cent.).

Gauge in Inches.	Torsions in 8 inches.	Bends at Right Angles.	Breaking Weight in Pounds.	Remarks.
0.40	16	3	181	Moderate
0.50	95	4	237	Fair
0.60	98	4	294	Fair
0.71	80	4	396	Very fair
Average	72	3.75	277	

NORMAL.

Gauge in Inches.	Torsions in 8 inches.	Bends at Right Angles.	Breaking Weight in Pounds.	Remarks.
0.40	26	3	180	Fair
0.51	111	3	240	Fair
0.60	98	4	324	Fair
0.71	88	4	418	Very fair
Average	81	3.5	290	

These results do not indicate that 0.11 to 0.14 per cent. arsenic has any injurious effect whatever in material containing between 0.1 and 0.4 per cent. carbon.

CRUCIBLE STEEL WIRE (0.197 per cent.)

The following report was received from Mr. W. D. Houghton, who most thoroughly tested the crucible No. 7 series of steel.

The wire rod in No. 5 gauge was first tested, and the wires, after passing through the several draw plates, were also tested, and the results carefully recorded.

Arsenical.				Normal.			
Gauge.	Breaking strain.	Torsion in 8 inches.	Elongation in 8 inches.	Gauge.	Breaking strain.	Torsion in 8 inches.	Elongation in 8 inches.
No. 5	46 1 21	7	19 13	No. 5	45 1 0	9	19 16
8	33 1 0	2	5 1/2	8	33 0 0	2	5 1/2
11	15 0 0	12	4 1/2	11	13 2 0	8	4 1/2
14	8 3 21	7	4 1/2	14	8 2 0	11	4 1/2
18	3 2 0	12	4 1/2	18	3 1 0	12	4 1/2
20	1 3 21	12	4 1/2	20	1 3 21	14	4 1/2
22 1/2	0 0 78	24	2 1/2	22 1/2	0 0 70	31	2 1/2
24	0 0 41	114	2 1/2	24	0 0 41	151	1 1/2
28	0 0 31	13	2 1/2	28	0 0 28	221	1 1/2
30	0 0 21	2 1/2	1 1/2	30	0 0 20	219	2 1/2

On examination of these results, it will be noticed that in the undrawn rod the tenacity of the arsenical steel is about 2 per cent. greater than the normal material, and that the resistance to torsion is a little less.

It also will be seen that, although there are a few exceptions the resistance to torsion is generally less in the arsenical steel, the wire in 28 gauge, however, being practically the same in each.

It would appear, therefore, that when carbon is in large amount 0.2 per cent. arsenic has a perceptible effect. Further trials are needed to determine at what point it begins to have an effect on carbon steels.

Electrical Conductivity.

The arsenical and normal steel from Nos. 1, 2, 6, and 7 series were tested side by side for comparative electric conductivity with the following results.

		No. 1.	No. 2.	No. 6.	No. 7.
Normal	100	100	100	100	100
Arsenical	94	93	95	85	85

Excess of arsenic in the arsenical steel... 0.111... 0.140... 0.132... 0.197

It is quite evident that arsenic, like many other metals, increases the resistance to the passage of the electric current.

Corrosion Tests.

Three different sets of the samples of wire from Nos. 1, 2, 6, and 7 series, of the same weight and length, were stretched and fastened to flat pieces of wood. One piece was floated with the wires on the lower surface in a 2 per cent. solution of sal ammoniac. A second was placed in a water tank through which Darlington water flowed, and a third was nailed to a "pile" of a wharf at the Middlesbrough Ironworks, in such a position that at high tide it was covered with water, and when the tide was out it was exposed to the air.

These wires, after remaining in their respective positions for from one to two weeks, were taken out, rubbed with a towel, and weighed.

The loss in weight is recorded in the following table:—

		No. 1.	No. 2.	No. 6.	No. 7.
Weight of steel used in Nos. 1, 2, 6, 1336 parts. For No. 7, 562 parts.		Arsenical.	Normal.	Arsenical.	Normal.
Loss in sal ammoniac solution, 7 days	68	68	62	61	60
Loss in Darlington water, 10 days	130	135	121	114	103
Loss in salt river water, 14 days	70	91	63	113	68
				84	79

From which it would appear that arsenical steel is not more liable to corrosion than the same normal material; in fact, the results are in favour of the arsenical material, and indicate that arsenic retards the oxidation of steel.

Conclusions.

In looking over the various results, we notice that it does not appear that between 0.10 per cent. and 0.15 per cent. arsenic in steel for structural purposes has any material effect on its mechanical properties. The tenacity is but slightly increased, the elongation is apparently not affected, and the reduction in area of the fractured test pieces is practically equal to that of the same steel without the addition of arsenic.

With 0.20 per cent. arsenic the difference, although slight, is noticeable in the acid open-hearth steel prepared by Mr. Ainsworth, but even in this case the only serious difference evidently caused by the arsenic is the inferiority in the bending properties of pieces cut from the plates across the direction of rolling, after they had been tempered.

With larger amounts of arsenic the effect is decisive, as is clearly shown in Table II. When 1 per cent. is present the tenacity is increased, and the elongation slightly reduced, and the contraction materially reduced. The bending properties of the steel are, however, fairly good. When the arsenic amounts to about 1 1/2 per cent. the tenacity is still further increased, and the elongation and contraction of area still further reduced, and the bending properties are poor. With 4 per cent. arsenic the tenacity is increased and the elongation and contraction become nil.

I must here again remark that the trials with steel containing the higher percentages of arsenic cannot be considered altogether satisfactory on account of the very small size of the ingots made, and the consequent small amount of work put upon them before the bars were tested.

It is highly probable that had we had larger masses to deal with, the results would have been much more satisfactory; and I may mention that, confirmatory of this, when some of the pieces from the small ingots were hammered down to rods 1/2 inch square, even the steels containing 1.5 per cent. arsenic could be bent over and hammered flat without breaking. Further trials are required, therefore, to settle this point. The effect of quenching the steel after heating to a red heat in every case where arsenic was in large quantity was to improve its bending property.

Unfortunately there was not sufficient of the steels made to determine the tenacity, &c., of the quenched material; it is, therefore, thought desirable to make further experiments in this direction.

Hot working is not affected in the slightest degree by even 4 per cent. of arsenic. Judging from the experiments on heating the 4 per cent. alloy, it appeared to stand about as much heat without burning as a steel containing 1 per cent. of carbon.

When heated below the burning-point, such material can be readily hammered and rolled, and appears to be as soft when in that state as steel containing about 0.5 per cent. of carbon.

We may conclude, therefore, that arsenic has not the slightest tendency to produce red-shortness.

Arsenical steel does not appear to be more liable to corrosion than the same material without arsenical addition; in fact, oxidation is retarded by the presence of small quantities of arsenic.

Welding is made more difficult by even very small quantities of arsenic, and when welding material is required it should be most carefully avoided. This property of arsenic was noticed by Messrs. Harbord and Tucker.

Electric conductivity, as might be expected, is materially reduced by even small quantities of arsenic, 0.25 per cent. diminishing the conductivity by about 15 per cent. This property is conferred also by almost every element usually associated with steel.

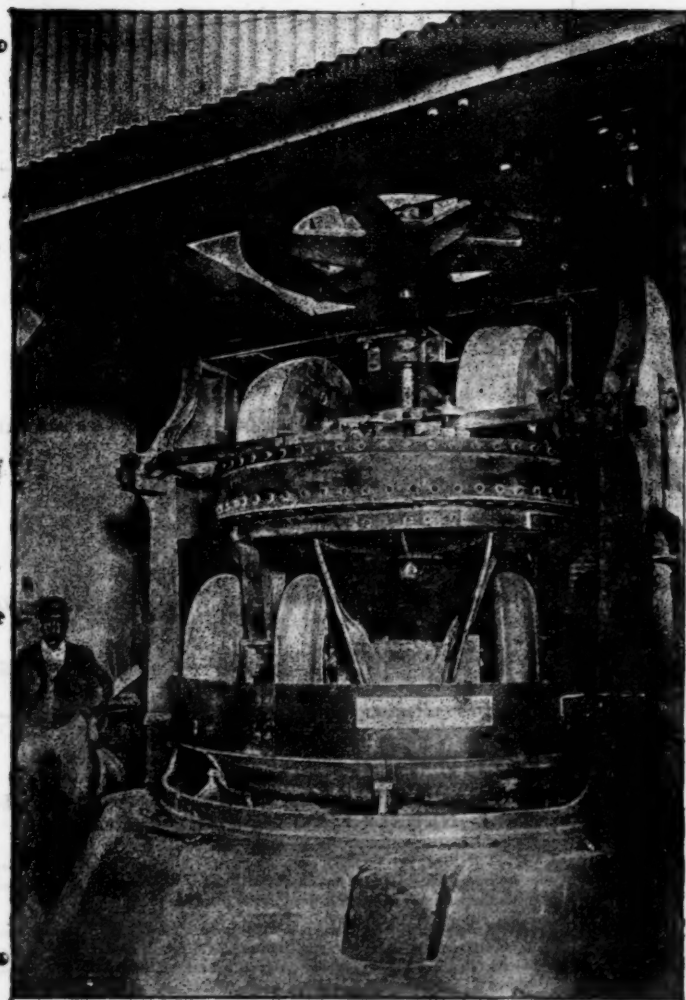
Practically the whole of this investigation has been devoted so far to ascertain the most important physical effects produced by arsenic, and little attempt has been made, for want of time and other causes to examine the subject from a more analytical standpoint.

I must again acknowledge the valuable assistance by Mr. David Evans, Mr. F. W. Harbord, Messrs. Richard Hill and Co., Messrs. J. H. Andraw and Co., Mr. W. D. Houghton, Messrs. Craddock and Co., and their assistants.

(To be continued.)

COMPANHIA DA ZAMBEZIA.—The annual general meeting will be held at Lisbon on June 27. The shares to bearer should be deposited either at the head office in Lisbon or at the office of the Paris Committee, 50, Boulevard Haussmann.

THE GREAT SUCCESS that has rewarded the philanthropic efforts to provide the public with good music in our parks, is shown by the large appreciative crowds who linger, with evident delight, near the various band-stands. The creation of the healthy taste for harmony will, in time, yield good fruit in giving the people a liking for a higher state of civilisation and a yearning for that which is good, noble, and true. Holmway's remedies work a similar miracle with the organisation of the body. The Pills, by their purifying influence, cleanse the blood, and the Ointment gives strength and energy to the system. Disease is driven out of its stronghold, and health once again resumes its sway.



THE LANGLEY STONE CRUSHER

holding mercury. Within each of these pans, but running free, there is a pair of circular iron plates, revolving like millstones. The pulverised stone or ore is fed in from the top, with a little water, and gently rubbed between the iron plates, which revolve in opposite directions. The fine auriferous sand is thrown out by the centrifugal force against the inside of the copper pans above the mercury rille by which the gold is retained. Passing down through five of these pairs of plates and copper pans it is said that 90 per cent. or more of the gold is saved. In fact, in one trial 94 per cent. of all the gold as shown by fire assay to be in the stone was extracted. The machine has been patented in all the principal gold-producing countries of the world. An objection has been suggested as to the probable effect of the stream of wet sand thrown with force from between the iron plates against the copper pans. It is thought the copper would sustain considerable wear; this, of course, remains to be proved.

The most powerful stone crushing mill that has come under my notice has been recently invented by Mr. Langley, the manager of the South Australian Portland Cement Works, near Brighton, about 10 miles from Adelaide. It is constructed on the principle of the Chilean mill, but has two sets of iron rollers in lieu of the stones. The upper rollers revolve in a fixed axle and in a strong iron pan which revolves, the rollers not travelling round the pan. They are 3 feet 9 inches in diameter and the faces are about 10 inches wide; each roller weighs 15 cwt. The pan rests on the rollers

REMARKS ON THE BANKET FORMATION AT JOHANNESBURG.

By A. H. SAWYER.

THE banket formation proper is restricted to the Transvaal, the Orange Free State, and Zululand. It covers a very large area, especially in the southern part of the Transvaal, and it is not by any means restricted to the Witwatersrand gold field. This formation, though approaching to a basin-shape in some localities, has not, so far, been conclusively proved to form a real basin (in depth) on the Witwatersrand. The curvature of the beds in the Witwatersrand gold field, where these are steep at the outcrops, turns to a flatter angle in depth. This curvature, which is frequently extraordinarily regular, resembling a parabolic curve, is not sufficient evidence that the strata would assume a horizontal position further south. Where the beds dip at an angle of 30° and less, they do not, so far as known, assume a flatter dip in depth. Nor is the fact that these beds dip to the north in some parts of the Heidelberg district proof positive of an uninterrupted basin theory.

In connection with a report which the author made for the Cape Government last year on the mineral resources of the Prince Albert district, a geological section was prepared from the Indian Ocean near the Knysna gold fields to Fraserburg, covering a distance of 150 miles. That section shows in what manner the beds of that region have been tilted, crumpled, and faulted by a tangential thrust or pressure proceeding from the Indian Ocean. Numerous thrust planes and reversed faults occur which throw the strata on to themselves, and also many anticlines which bring up the lower strata to the surface. It is possible that there is a similar section made from Johannesburg to Heidelberg, Vryheid, and Zululand, phenomena of the same nature would be disclosed, and that it would be found that, owing to reverse faulting, the banket beds occur nearer the surface between Johannesburg and Heidelberg than an uninterrupted basin theory would suggest.

The geological aspect of the question resolves itself into three parts—(1) The manner in which the group of rocks known as the banket formation was formed; (2) the manner in which it has become broken up, tilted, and readjusted; and (3) its relation to other rock formations in South Africa, and its relative age.

The chemical aspect of the manner in which the gold was deposited in the matrix of some of the banket beds, either at the time of their formation, or, as the author believes, subsequently.

With regard to the manner in which the banket was formed, there is no reason for supposing that the sandstones, quartzites, shales, and slates of which it is composed, are formed differently from rocks of a similar nature elsewhere, and that they are a barren detritus of rocks of former ages. Various theories have been advanced to explain the presence of such continuous and persistent conglomerate beds as occur in the formation.

The writer has stated elsewhere that the "thin beds of conglomerate were probably shingle banks or gravel beaches as we now see them. The manner in which thick beds of conglomerate, like those occurring in the old Red Sandstone in Scotland, were formed is not so easy of explanation. Conglomerate beds are, as a rule, very variable in thickness; they also run in and out pretty freely. The constancy, therefore, of the bankets over such a great distance is remarkable. The length of their extension justly suggest a continuation downwards for a considerable distance." In thus speaking of the constancy of these banket beds, the author has the South reef and its leaders more especially in view, which may be said to be continuous over a considerable area.

The other reefs are more lenticular, and not very different from ordinary conglomerate beds. It is, in the writer's opinion, premature to speak of any of the theories which have so far been advanced with any degree of certainty. No satisfactory theory has yet been promulgated to account for the occurrence of the well-known Dwyka conglomerate in Cape Colony, Natal, and Zululand; and some time must yet elapse, and we must be in possession of many more systematically-collected facts before any really tangible theory can be advanced which will be generally acceptable to account for their formation.

The manner in which the banket formation has been broken up, tilted, and readjusted has, to some extent, already been explained. Eruptions of basic igneous rocks occurred previous to, concurrently with, and subsequently to the disturbance produced by a lateral thrust. The rocks forming the banket formation have not always been in the state of consistency in which they are now found. Heat and moisture combined, before they were raised to their present horizon, to form them into a pasty mass. The intrusions of igneous rocks subjected them to high temperature, and the tilting, collapse, and readjustment also developed heat within them.

A good example of one dyke extended when the formation was still in a horizontal position and thrown out by one which had been intruded subsequently occurs at the Ferreira Mine. The dykes and bosses occurring in the undisturbed coal formation, which unconformably overlies the banket formation in places, were intruded after the banket had assumed its present position. Diabase, an altered dolerite, predominates as the substance of these dykes. In the Heidelberg district, more especially, the well-known amygdaloidal trap, similar to the rock which occurs at Klipriviersberg an ancient lava in which the amygdulæ contain quartz, also occurs. The quartz which fills these amygdulæ bears some resemblance to the pebbles in some of the banket beds. Hornblende and chlorite-schists formed by alterations of these igneous rocks also occur, apparently interstratified with the sedimentary beds.

Although dykes on the Witwatersrand crop up in nearly all directions, the more prominent ones appear, as far as they have been observed, to run either nearly north and south or east and west. The writer does not know to what extent the dykes have been assayed for gold, but many of them contain pyrites. The so-called spar veins, which are quartz veins occurring in the formation, also contain pyrites. Such veins sometimes occur between the reef and its footwall as at Knight's.

As regards the age of the banket formation and its chronological order, it has been demonstrated that it is younger than the well-known crystalline schists of the country, and older than the so-called "Elephant Rock," a dolomitic limestone widely distributed in the Transvaal, and the coal-formation overlying it. The writer pointed out in his report to the Cape Government that the sandstones, quartzites, and talcose slates of the Zwartberg mountains greatly resemble those of the Witwatersrand, and that this similarity is increased by the presence in the Zwartberg sandstones of white, pale-red, and black quartz pebbles, some of which are very brittle. These pebbles lie mostly scattered in indefinite lines, but the writer has found them more concentrated in the shape of thin banket beds.

No fossils have, to the writer's knowledge, been found in the banket formation. The dendritic impressions so often thought

to be of organic origin are merely the result of a re-arrangement of particles, possibly assisted by a weak electric current.

The writer was fortunate enough to come across the Brachiopods Spirifer and Terebratulina whilst examining the rocks in the Zwartberg mountains. This is evidence of their being of Carboniferous age, and judging by lithological analogies, the banket formation will probably have been formed during the Devonian or the Carboniferous age. The writer has found what have so far been considered as true Carboniferous fossils—Lepidodendron and Favularia, in the more recently-formed coal formation at Vereeniging; but as many fossils of Triassic age are found in these measures, it is a question whether these "Carboniferous" fossils did not live into the Triassic age. These coal deposits lie, like all those in the Transvaal, unconformably on the banket formation, and are, therefore, much younger. The writer may remark that the beds in the Zwartberg mountains are plicated and faulted in a remarkable manner, but are evidently very rarely traversed by igneous dykes.

With regard to the chemical aspect of the question, the author does not regard the term "pseudomorphic" (a term used by a recent writer on the subject), as applied to the matrix of the conglomerate, a happy one. A "pseudomorph" is a mineral which has replaced another, and has assumed the external form of the mineral so replaced. The writer is not aware that any mineral now found in the matrix of the banket assumes the external form of one which it has replaced. That there has been a replacement of minerals by others, in the matrix of the banket, has never been doubted. In the author's paper of 1889, he stated that:—"Rocks are porous, conglomerates are more porous than the enclosing rocks, hence that would be the path chosen by the ascending hot waters or vapours containing gold, and it would be deposited in the matrix of the conglomerates, and to some extent in the pores of the enclosing rocks as well." That the conglomerate beds are more porous, and would afford a freer road to ascending solutions, will be evident from the fact that even in cyanide vats solutions pass more freely through the coarse material. The fact that frequently the larger the pebbles the richer the reef will also be thus explained.

The following passage is taken from the author's recent book on "The Gold Fields of Mashonaland":—"Intrusions of basic igneous rocks occur as dykes and sheets. At their junction with the schistose rocks minerals have been developed in the latter by contact-metamorphism. These being the deep-seated rocks, they frequently contain the heavier metals in greater abundance, and it is in rocks in contact with them or derived from them that mineralised veins most frequently occur. The ore particles and veinstone of which these veins are composed are derived from the neighbouring rocks, and have been deposited from solutions, not necessarily in fissures, but more often along certain cleavage or foliation-planes, by interchange or replacement of the more soluble portions of the rock."

These remarks, so far as the facts collected up to the present enable one to form an opinion, apply partly to the introduction of the gold in the banket formation. Just as in an ordinary quartz vein there has been an interchange and replacement of the more soluble portion of the rock in which the vein was formed, so in the banket beds, the matrix has become altered, and gold, silver, and pyrites have been carried there in solution. The matrix has also become very much more silicious, so that, if it were not for the pebbles, a piece of banket in depth would resemble a piece of ordinary vein quartz.

The writer is informed by Mr. Cross (assayer to the Standard Bank at Johannesburg) that the proportion between gold and silver, commonly called the fineness, varies greatly at different parts of the field, but that it has not yet been proved that it varies in the same locality in depth. That statement, taken in conjunction with the fact that many of the large and important dykes run north and south, points to the probability that the solutions carrying gold and silver rose from below upwards, so that the rocks from which the solutions derived their minerals may not yet have been disclosed in depth. This statement confirms the writer's view, expressed in 1889, that the solutions from which the gold was deposited ascended. The extreme relative proportions of gold and silver were respectively 93 per cent. of gold to 7 per cent. of silver, and 83 per cent. of gold to 17 per cent. of silver.

It is stated as an objection to the view that the gold was introduced subsequently to the formation of the banket beds, that it occurs very regularly in certain beds, whereas others equally favourably situated in regard to the sources from which the solutions are supposed to have originated, are barren. It is not easy to account for the erratic courses of solutions, especially if, as in Mr. Cross's experiments, they are induced by an electric current.

A theory has been advanced in which the gold is described as having been precipitated from a solution, at the time of the formation of the banket beds. It is supposed that driftwood collected in some way by the pebbles, precipitated the gold around them.

An examination of the assay plans at the various mines, with an examination of the reefs, establishes, the author thinks, the following facts, which agree better with the theory that the gold was deposited after the formation of the banket beds than at the time of their formation:—

1. That the gold is very evenly distributed in the south reef and its leaders, in the vicinity of Johannesburg.
2. That although the gold is pretty evenly distributed in the other reefs, yet certain richer patches or shoots occur, as in ordinary quartz veins, and some poorer patches which are left in.
3. That exceptionally rich pockets are occasionally found in which the gold occurs along with the pyrites.
4. That the richer patches or shoots are not necessarily in close proximity to igneous dykes, so far as these are at present disclosed, but, on the contrary, that the reefs are in some instances poorer nearer dykes.
5. That whenever, as sometimes occurs, the reef is richer than the average on one side of a dyke, it is poorer on the other side.
6. That frequently when the reefs are thinnest they are richest. Leaders, being thin, are usually much richer than the reefs near which they lie.
7. In the south reef the larger the pebbles, as a rule, the richer the reef. This applies to some extent also to other reefs, but there are exceptional cases in which the richer portions of the reef have smaller pebbles. Barron beds with large pebbles also occur in the banket formation.
8. At some mines the richer shoots have, like the prevailing faults, a north-westerly or south-easterly trend.

The writer places the limit of the workable depth at 5000 f. et. He believes that it is possible to properly ventilate workings at that depth by properly opening out the mine. For that purpose the shafts should be round and of a large diameter. The rectangular shafts generally sunk on the Witwatersrand, besides being so timbered as to obstruct ventilation, are, as is well known, of an unsuitable section to obtain the maximum of ventilation. Unless the Witwatersrand mines are laid out with a view to the effectual ventilation of large areas, such an oversight will cause considerable difficulty at greater depths than

are being now worked, and the cause will be put down to high subterranean temperatures.

Mr. John M. Liddle (Newcastle-upon-Tyne) wrote that diorite dykes, were, in his experience, generally, if not always, to be found near gold and diamond deposits in South Africa, a fact which tends to show that there was something common at least to the agencies that produced both the diorite and the deposit of the precious metals and minerals. It had been suggested that the occurrence of two reefs near together—viz., the Main reef and the South reef—was due to overlap or over-sliding of bed upon bed, but the great areas of the South reef and the Main reef, now proved to occur simultaneously, show that theory to be untenable. The banket formation appeared to be rather an extensive system of strata containing beds of conglomerate of varying thickness, the whole series being faulted, tilted, denuded, or overlaid by subsequent action, many parts still remaining under cover, and the existence of gold in the conglomerate was discovered where the latter was tilted to the surface or denuded. It has been suggested by Mr. Alfred that the gold-bearing beds were formed by the deposit of silica, gold, and other matters from a hot solution. This theory would explain the occurrence of the banket beds, and also of interbedded veins of quartz. The rich cross veins of quartz which were found running from the main interbedded veins were observed, he (Mr. Liddle) thought, invariably to run into the footwall (once the floor), and never into the hanging-wall (once the roof), of the vein, unless a portion of the vein has been tilted for an angle of more than 90°. Dykes, in his (Mr. Liddle's) experience, did not carry gold unless intersected by quartz veins. At small faults there was frequently found to be some change in richness of the deposits, the banket on one side containing more, and on the other less gold. Probably the faults were formed just before or during the deposition of the banket (the fault faces not being always clean-cut), and thus formed natural riffles which retained more gold on one side than on the other. It is worthy of notice that the carboniferous beds lie immediately upon the auriferous beds over a wide area. No case of fossils occurring in the banket beds was generally known, but it was nevertheless conceivable that these carboniferous beds succeeded these auriferous beds in chronological order. The sandstone beds are very porous, possibly more so than the banket beds which contain much clayey slime, and often have a mudstone bed for a footwall. Deposits of coarse particles of gold and pyrites commonly occurred under pebbles in the banket, more especially where the pebbles were of good size (say) that of a walnut, evidently drifted there by a water current just as sand is deposited behind a pebble by the ebb of a wave on the sea beach. This suggested that the gold was deposited (perhaps precipitated) in a liquid on a pebbly bottom during the deposition of a gravel bed moved by currents or waves. The pebbles always show clearly in the deposit, often with metallic particles lying under them, and with layers of shaley matter about them. The South reef consists commonly of about three thin banket beds with clay partings and silt between. It varies from a mere parting to a seam of as much as 15 feet in thickness, and where no pebbles are apparent the gold is often found in the sandstone and clay partings. The reef (seam) is commonly richer where it is thinner, but the amount of gold from yard to yard is very irregular, although from a given area of (say) 20 acres, a fairly regular output can be maintained. The richness of thinner areas of reefs is probably due to the deposit of gold having been more or less constant, and that of the contemporaneous silt and gravel very variable in banks and ridges.

TIN TICKETING.

A TICKETING for tin ores was held at Tabb's Hotel, Redruth, on Tuesday, with the following result:—

VALUES OF ORES SOLD BY EACH MINE.		Tons cwt.		Per ton.		Value.	
Mines.		£ s. d.		£ s. d.		£ s. d.	
Wheal Genville a.....	20 0	£39	7 6	.....	£787	10 0	
do b.....	17 0	29	7 6	.....	674	7 6	
do No. 2.....	4 0	26	0 0	.....	104	0 0	
Dolers' No. 1.....	17 0	38	2 6	.....	648	2 6	
do No. 1a.....	16 0	38	0 0	.....	608	0 0	
Tincroft.....	16 0	31	15 0	.....	508	0 0	
do.....	16 0	32	0 0	.....	512	0 0	
Carn Brea No. 1.....	15 0	31	17 6	.....	478	2 6	
do No. 1a.....	15 0	31	15 0	.....	476	5 0	
do No. 2.....	1 10	25	2 6	.....	37	13 9	
East Pool a.....	14 0	33	12 6	.....	470	15 0	
do b.....	13 0	33	7 6	.....	433	17 6	
do No. 2.....	1 10	16	17 6	.....	25	6 3	
Wheal Basset No. 1.....	22 0	39	12 6	.....	871	15 0	
do No. 2.....	5 0	29	7 6	.....	146	17 6	
South Frances No. 1.....	10 0	36	10 0	.....	365	0 0	
do No. 1a.....	10 0	36	15 0	.....	367	10 0	
West Kitty.....	13 0	39	2 6	.....	508	12 6	
Phoenix United No. 1.....	11 0	37	12 6	.....	413	17 6	
South Condurow.....	7 0	39	7 6	.....	275	12 6	
Ryan Ore No. 1.....	3 10	44	2 6	.....	154	8 9	
do No. 2.....	20 10	43	17 6	.....	899	8 9	
do No. 3.....	8 10	41	7 6	.....	144	16 3	
		271	10		£9911	18 9	

Average price per ton, £36.

AVERAGE PRICES PER TON.

March 12.....	£34	3 7	May 7.....	£37	12 2
March 26.....	35	19 11	May 21.....	39	0 3
April 9.....	36	7 6	June 5.....	37	4 6
April 16.....	36	17 1	June 18.....	36	0 0

THE DRY PROCESS AT HANNAN'S.—A telegram dated Kalgoolie, April 25, to the West Australian Gold Fields Courier, states that at Thorroett's Red Hill, Lady Lily Mine, Hannan's, the machinery, parts of which have been months delayed in transit, is now in position and complete. A trial run was made recently, and apparently was a great success. The machinery consists of a Hornsby-Arkwright oil engine, working a dry crushing process made by May Brothers, of Gawler, S.A., attached to which is a patent dry-blowing apparatus to separate the gold from the crushed material. The process obviates the use of water altogether. The plant was erected by, and is in charge of a competent engineer, a son of Mr. Parkes, the well-known Inspector of Mines in South Australia. The company have thousands of tons of gold-bearing stuff to operate upon, and much interest is taken in the district in the outcome of this venture. If success is attained, a wide and profitable field of enterprise will be opened up in this and other parts of the field. Mr. George Pleas, the managing director, who has been working under difficulties with great patience and energy for many months past, will, if success is attained, be deserving of much credit for introducing practically a new departure in mining.

THE DIAMOND DRILL ON THE RAND.—A contract has been entered into between two large financial houses and Messrs. Fraser and Chalmers to put down a diamond drill on some Deep Levels to intersect the Main reef at a depth of from 3500 feet to 4000 feet. The general idea is to prove the theory of the dip of the banket beds of the Rand.

* From a paper contributed to the Federated Institution of Mining Engineers.

THE MURCHISON DISTRICT, W.A.

By BRENTON SYMONS, M.I.C.E.

THE Yalgoo mines are reached best from Geraldton by taking the rail to Mullewa, whence a coach runs to Mount Magnet. Yalgoo is about halfway on this road, which passes through a tame and uninteresting country of sand plains and scrub. The Pingalling claims are a few miles northward of the hill bearing that name, which is, perhaps, 60 miles south-east of Yalgoo townsite. The claims known as the Bute, Portland, and Carbine have often a blackish-blue quartzite, sometimes of a sugary character, said to be of high grade for gold. The Messrs. Cookson are working claims here.

The Emerald Reward claim is in full work, and has crushed some high grade quartz. The mine is provided with a 5 head battery and a Huntington mill. The shafts are not very deep. There is also at Yalgoo the Carlyn stamp. Both the Yalgoo and Pingalling lodes are enclosed in hornblende rocks, which rest in synclinal of the granitic belt that stretches across the continent from Gascoyne to Albany.

The interior plains, east of the Murchison and Gascoyne watershed, were explored by R. Austin in 1856 and following years. He recognised the auriferous character of the territory, and so reported to the Government.

I. Forrest in 1874, Giles in 1876, and Lindsay in 1892, also explored the interior in various directions, but without recognising its value as a gold field. The first discovery of payable gold was made in 1888, by Birk, but not much prospecting was done in that year at Mulga Mulga, as the district was named. The Murchison district was proclaimed as a gold field in September, 1891. Towards the latter end of January, 1892, Fitzgerald's party made the earliest find in close proximity to the locality on which now lies the township of Cue.

Geraldton, which lies 291 miles north of Perth by railway, and contains a population of about 1600, is the seaport for the Murchison district. Immediately surrounding the town are high sandy ridges or dunes, which have been raised by the wind, and before action was taken to arrest their advance, threatened to seriously affect the town. Behind these sandy ridges are low coastal ranges of limestone. The Murchison river, which drains the district between Cue and the coast, though large, does not run all the year; but extensive depressions in its bed are never dry, so that water is always obtainable. For half its course the stream serpentine through an irregular valley to the confluence of its chief tributary—the Sanford—which takes its rise in the hills surrounding Cue. The plains along the middle portion of the Murchison have a plentiful supply of water at a little depth, so that the sheep can water themselves at slopes made for that purpose. Sheep stations are numerous, and often well kept on these plains, and also amongst the head waters of the main river, where grassy slopes and saltbush afford good feeding for stock. The bed of the Sanford winds around the hilly spurs of the Weld range, becoming lost in the level country about Cue.

There are two coach roads to Cue, both bad, and passing over slightly rolling sand plains and scrub, the fine forests which diversify the road up to Coolgardie being conspicuously absent. One road passes Nancarrow, and thence direct to Cue; whilst the other goes around, via Yalgoo and Mount Magnet. The last-mentioned route is the longest, but there is no great difference in the time taken, which occupies three days. The accommodation along either route is in painful contrast to that provided between Southern Cross and Coolgardie, the coaches stopping alongside of the stabling, leaving the passengers to roll themselves up in the rugs on the sand under the stars. Whatever comforts are desired must be taken along, as nothing, not even water, sometimes, can be purchased. To the eastward of the Cue watershed, which is usually at the junction of the granitic belt with the auriferous metamorphic rocks, the streams flow toward the interior, falling into salt flats or clay pans. The region east of Cue is excessively dry and arid, low ranges of hornblende rocks and less prominent domes of granitic rock appear above the interminable plains and salt lakes. The plains, covered with low bushes, will furnish a good firewood for a few short years, but cannot be used safely for timbering shafts, because after a time crushing takes place and the shaft is liable to be lost. But there is every probability that ere long the railway will be extended from Mullewa to Cue, and that fuel in the shape of anthracite coal from the Collier field, near Bunbarry, and good building and mining timber from the Darling forests, will be bountifully and cheaply supplied.

Cue is situated on an extensive plain with low hills some distance to the north; the surroundings are far from inspiring. It possesses a municipal council, Mr. Gale having had the distinction of being the first Mayor. Though not such an important centre as Coolgardie, which in general characteristics it resembles, it is fast progressing and possesses hotels, good stores, and buildings, and is in telegraphic communication with Perth. The inevitable hospital is much in evidence, and has, during the few past months, been so overcrowded that patients have been in two or three cases without shelter. The temperature during the summer months runs very high, frequently registering 110° Fahr. in the shade, but the nights are usually bearable and sometimes quite cool. As at Coolgardie sandstorms occur, and occasionally a "willy-willy" causes considerable damage. The other-iders have brought along with them their love for sports and cricket matches, and horse racing has an enthusiastic crowd of devotees. Cricket was first played in 1892, and the first race meeting took place October 26, 1893, and in February of the same year a newspaper was started. The first crushing plant erected was a Huntington mill on the Day Dawn Mine, and soon after a small stamps on the Mainland. Provisions, except meat, which is only 6d. per pound, are somewhat dearer than at Coolgardie, onions, potatoes, and all vegetables that can be obtained selling at the same price as beef and mutton. Spirits are from 12s to 16s a bottle, and even a bottle of Australian claret costs 8s. There may be 5000 people in the Murchison district, quite two-thirds hailing from the Eastern colonies, and these furnish the energy which is developing the mines, the West Australians preferring a quiet uneventful life to the perils and excitement of prospecting. Prospectors are spread out well all over the country, more especially to the east and south, and their traces are to be everywhere met on the boundless plains in the shape of empty cans and whisky bottles.

The geology of the Murchison field east of the granitic belt is similar to that of Coolgardie, of which it seems to be an extension. The folding and bedding runs parallel to the belt of granite stretching north-north-west across the colony. Hornblende rocks—sometimes schistose, sometimes massive—with here and there granitic rocks—outcrop along the plains which extend for hundreds of miles towards the centre of the continent; but the greater part is concealed under sandy plains and large alluvium flats called salt lakes, though they are always dry. The reefs are numerous, and usually well defined, with often cappings so rich as to allow of doliing out the contained gold; but these "shows" or shoots are neither so valuable or

numerous as those of Coolgardie, nor do the battery reefs appear to carry such a high-grade of quartz, though on account of the workings being deeper the veins have the reputation of being more permanent in depth. Much of the interior is occupied by horizontal beds of calcareous sandstone, the degradation of which has given rise to the persistently sandy character of the interior.

Centuries of exposure to atmospheric influences has degraded the basel edges of the gold quartz veins and deposited the gold amidst the alluvium, not far removed from the veins themselves. At the Austin Lake island were found the richest diggings. The strip of alluvial ran down from the middle of the highland towards the lake. The gold was found much concentrated on the bedrock of this gully, lying 10 to 18 and even 25 feet deep under alluvium, cemented by the deposition of some sulphate of lime, which made it very tough work for the diggers. There are several small rich patches of auriferous alluvium at most of the mining centres, but never at any distance from the groups of quartz reefs, and these patches are mostly signalled by a surface debris, consisting of quartz and ironstone. None of the gold gravels possess any depth, and often it is only a thin skin on the surface. The largest piece of this alluvium was discovered close to Cue, and was celebrated as the "Speeking" grounds over which scores, and at one time hundreds, of men walked daily with a forked stick to turn over every stone on the chance of its hiding a nugget; the gold was all on the surface and sinking revealed no more. A considerable quantity of the precious metal was collected in this way, and now and then a stray slug is still picked up accidentally. Denudation in the interior has been so slow since the surface was levelled off by the Carboniferous ocean, that no such auriferous gravels as those obtained in the eastern colonies can be hoped for, though it is not only possible but probable, that the ancient sea has deposited gold in low-lying hollows, now concealed under the more modern deposits that spread over large tracts of the inland deserts.

Several important groups of mines lie immediately around Cue. The Lady Mary and Rising Sun claims lie almost in the township, as is also the New Year's Gift. Two miles north-east of Cue is the Light of Asia and Queen of May, which possess good battery rock. A mile further in the same direction is the Normanby group and Blake's Zealandia. South of them are the Eclipse group and the Agamemnon, on which latter three shallow shafts have been sunk. The vein dips south-west through well-defined walls of decomposed granite, has a width of 3 to 4 feet, and produces payable ore. Adjoining on the west is the Tasmania, with two shafts about 50 feet deep, on a lode 6 feet wide. The Premier Mine is about four miles east of the township, and water has been reached in the shaft.

The Cue group commences at the township, the claims stretching along the reef in a north-north-west direction a mile and half. The Cue No. 1 has three shafts down, the deepest being 150 feet from the brace. The vein has a westerly dip, and is not a large one, said to average 3 feet. The Cue has been having rich quartz crushed at the customs mill, some of which has yielded nearly 3 ounces per ton. There are claims pegged-out on the Cue reef for more than a mile. Half a mile to the south-west is a parallel reef on which are the Anglo-Saxon, Great Britain, and Real Mackay Mines, and in the same direction are the History and Mystery claims, which have yielded good ore. Three miles northward from the Cue township is the Red, White, and Blue group; there are four shafts, and in the deepest water was struck at 112 feet. The lode strikes north-west through all the claims. Half a mile north-west is a nearly parallel lode, along which are the Bulletin, Leviathan, Kangaroo, with others, while the Star of Westralia is further north on the same line. The Kangaroo battery was started early in April. The Carbine group is 1000 yards north-west of the Star of Westralia. The Murchison United Mines have a good mine in the Lily, which is distant only half a mile from Cue. A hundred tons crushed at the public battery returned considerably over 2 ounces to the ton. The Homeward Bound group is two miles west of Cue.

Day Dawn township is gradually assuming a townlike aspect, and is the centre of several groups of valuable properties, many of which are in the possession of English companies. The Consolidated Murchison Gold Mining Company own the Day Dawn and Rubicon groups. The latter is situated 1½ mile north of the town. All the mines of the Day Dawn group are yielding fairly good battery stone, and have doubtless a prosperous future before them. The Emperor, a mine a mile south of this group, has a small battery which can only crush rich stone, several ounces to the ton having been extracted from the 150 tons treated. The Kinsella Mines lie rather over a mile from the townsite, the lode striking north-east by north. The shaft in the Kinsella is nearing a depth of 100 feet, and the quartz crushed during April yielded nearly 1½ ounce to the ton. The Trenton Mine is two miles south-west of Day Dawn, and the shaft is over 200 feet deep, the vein early 6 feet thick, showing coarse gold. There is water in the shaft. The La Tosca group of mines is situated three miles south-west of the town. Considerable mining has been done, and the large amount of quartz crushed has yielded over half an ounce per ton. The rocks surrounding Cue are, for the most part, of a schistose character, with white decomposed granite to the west, like that of the Coolgardie district. The reefs are, as a rule, well defined, and as they run both in a north-easterly and north-westerly direction, seem to be considered as true fissure veins. The gangue of the lodes, whose size is moderate, varies, being a white, somewhat barren-looking quartz in the schist, while in the granite it is a glassy-white quartz, often drusy, with the cavities filled with crystals of green talc and gold. At Day Dawn the quartz is bluish. The veins immediately surrounding Cue are not phenomenally rich, but they appear strong, and are likely to prove permanent; while the grade of quartz is sufficient, when the future provides railway facilities, to ensure, with businesslike management, profitable results. The amount of British capital invested guarantees that the mines will be thoroughly proved in depth, and this will be of vast importance to the district. Should the lodes prove to be permanent in depth and value, a great future is in store for the Murchison mines.

The mining centre known as the Mainland is about 14 miles south-east of Cue, and is situated along the shore of a vast salt lake, which has been named Austin, after its discoverer. The island—16 miles from Cue—was discovered at the end of March, 1892, when Lawrence dollied from the Orient over 1000 ounces of gold. The chief mines on the Mainland are the Golconda and Mainland Consolidated; the latter mine had some quartz which dollied out 2000 ounces to the ton. The Golconda group of claims form a good property. At the Golconda Extended No. 1 North the lode at a depth of 17 yards has a width of 5 feet. The winding and pumping machinery was started early in April.

The high ridge of metamorphic rocks which forms the backbone of the island strikes in a nearly north-south direction for about a couple of miles. It is sundered from the shores of the Austin lake by narrow channels not exceeding 1000 yards in width. During heavy rains these channels are almost impassable, and as no fresh water exists it is an unpleasant spot to be weather-bound. Portions of the vein outcroppings were remarkably rich, and the main reef,

which strikes in a meridional direction, is crossed by an east and west vein that has been found to be also auriferous. This supports the assertion that the lodes, or at least some of them, are true fissure veins. The principal mines are those belonging to the Austin Gold Company, which includes the Evening Star. The water on the island is so saturated with salt (4 lb. per gallon) that pipes have been laid 2½ miles to a tank capable of storing 60,000 gallons from a fresh water well. The site for the battery has been well chosen, and a fall of 100 feet to the lake provides ample dumping ground. Both the Golconda and the Austin have 10 head batteries, and are well-provided with mining plant, and the gold yield, which has languished during the first three months of 1895, will speedily show a substantial increase. It is proposed to erect a cyanide plant capable of passing through several hundreds of tons monthly, by which also the tailings will be retreated. In the main shaft of the Austin the pumping line has been fixed to a depth of about 140 feet.

The Coddlingwarra (Dead Finish) is about eight miles west-north-west of the town of Cue, and here another protrusion of metamorphic rocks, enclosing several gold-bearing veins has been prospected, and several well-known claims, such as the Star of the East, Fortune of War, and Victory United are being energetically developed. The main shaft of the Star of the East has been steadily gaining depth and is now down nearly 60 feet, water having been cut at 50 feet. As soon as pumping gear has been got to work sinking will be resumed. The new engine has been fixed and crushing recommenced. At the Fortune of War new machinery has been put up. Good ore exists in three shafts, but the want of water for the proper running of the battery caused the loss of nearly half the gold contents of the quartz. The new machinery will effect a great improvement in this respect. A large quantity of gold was recovered in dismantling the old mill. The Victory United crushed in February and March 573 tons of quartz for a yield of 275 ounces, or over 2 ounces per ton.

The country between Cue and Mount Magnet for 60 miles is undulating, consisting mostly of mica schist hills, quartz, quartz grit, and hornblende schist, beds of dolomite, talcose schist with red jaspery quartz are also present. They show a series of undoubted metamorphic strata of much the same character as enclose gold fields in other parts of the world. These beds rest on the granitic rocks, as they are close to the belt of eruptive-looking granite extending nearly north and south across the continent. The general direction of the beds has a similar strike, and the reefs, apparently much interbedded, are often divided by clayey partings. The quartz is usually white, and ferruginous by the oxidation of the pyrites which will also be found in depth.

The alluvial diggings are a few miles south-west of Mount Magnet, the patches being recognised by the quartz and ironstone spread over the surface; these auriferous patches are found close to a dyke of ferruginous quartzite to which they must owe their origin. A nugget weighing 112 ounces was found. The New Chum is the most important mine here, and is said to have yielded hundreds of tons of ore that milled 3 ounces.

The Morning Star cleaned-up in April 651 ounces of gold from 453 tons of quartz. Lady Florence and the Mystery are said to be good claims.

The Nannine is about 50 miles north-east of Cue. The rocks are mostly schistose and have intercalated beds of red jaspery quartzite, which striking about north and south dip at a high angle to the east, but the reefs are found either vertical or having slightly westward, and also have a strike a little eastward. The main reef can be traced easily for a considerable distance by the huge blow-outs, between which are small but very rich potholes of gold quartz; these small shoots dip through the vein northwards. Both at the north and south end this large vein splits up. The quartz weathered white at surface, has a blue tint in depth, and showing some galena and pyrites. This is a true fissure, and its size and length give assurance of great depth. In the low valley of the Nannine is a series of reefs nearly parallel to the Champion lode; there are also some veins eastward of it in which some rich stone has been followed. Some more or less rich patches of alluvial gold have been worked. There is, just at present, fresh water, but if drawn on heavily it may perhaps become brackish. Some forest timber exists at a little distance.

The chief mining developments are being done on the Champion line of claims—Champion, Champion Extended, Black Snake, &c., and crushings of from 12 to 20 dwts. have been made. The Champion shaft is about 70 feet deep. Some of the tailings treated at Ballarat gave 1½ ounce by the cyanide process, and it is intended to erect a battery with a cyanide plant immediately. The Queen of the Lake is crushing rock (worth about ½ ounce) from the Queen shaft, two miles distant, and to economise transport intend removing the battery to that place. The country rock of the Nannine Mine is hard diorite, containing pyrites and blue slates. The shaft is still being sunk to meet the rich shoot, and is 129 feet deep, where quartz containing coarse gold has been met. The water is quick, and said to amount to 5000 gallons. As yet there is insufficient quartz to keep the stamps running full time. The lode is sometimes 8 feet wide, and trial crushings have extracted up to 5 ounces of gold per ton, though, of course, this must be far enough ahead of what the average crushing can possibly give. Some small trial crushings of quartz raised from the Black Snake and the Caledonian yielded in the mill about 20 ounces to the ton.

Twenty miles east of Lake Anson is a small patch of auriferous rocks near the Yagahong hill, and 12 miles south of it is the Quinn's camp. Some little elevated ranges of metamorphic strata protrude from the plain. The backs or outcrops appear like iron lodes on account of the oxidation of the pyrites. So much pyrites leads to the opinion that in depth the gold will be included in the ferric sulphide. Some of the little ravines running down the sides of the hills were rich in stream-gold, and a considerable number of dry-blowers are employed in the stream-works doliing the gold out of quartz, as there is no crushing plant on the ground. Except after rains water is very scarce, and the surface is thickly sprinkled with scrub. In the beginning of April the camp was denuded of the dry-blowers on account of the rumoured discovery of rich alluvial diggings in the vicinity of Lake Darlot. From the reefs there considerable quantities of gold have been dollied out, some of the quartz being reported to be worth 1000 ounces per ton. The prospectors labour under terrible disadvantage, being at such a distance from a basis whence they can obtain supplies.

There are now on the Murchison gold fields 25 batteries either in operation or in process of erection, and as the fields were earlier discovered more works of development have been done and the shafts are deeper. The grade of ore seems sufficiently high to ensure moderate dividends in mines not too highly capitalised, and the number of heads of stamps which will shortly be in operation should before long show results which would have the effect of restoring the confidence of the public in the permanent character of the reefs, a confidence rudely shaken by the—probably temporary—collapse of the London-derry, and by the untoward fiasco at Cashman's. Water is fairly plentiful around Cue, and when the railway is extended to the district there is no reason why low grade quartz should not be successfully treated. Most of the batteries have as yet only

10 heads, but there are some which have 20. There are also public crushing mills which have proved a great boon to those who wish to arrive at the value of their quartz, or who unable to find the capital to erect crushing machinery of their own. The difficulty and expense of procuring timber will be considerably ameliorated on the completion of the railway. A considerable amount of very rich gold quartz from the different mines has been dollied and crushed; and although some has yielded ore of fabulous value, yet the future of the Murchison depends on the quantity of average-grade quartz which can be raised from the mines. To give some conception of the ores which have been obtained from the reefs around Cue, the following list of crushings made at the Francis Otis mill during six months ending November, 1894, is submitted:—

	Tons.	Oss. dwts. grs. per ton.
Victory United ..	50	4 5 0
Cue One ..	279	2 8 3
Lily ..	50	3 0 0
Lady Mary South ..	18	1 2 0
Golden Stream ..	78	1 13 0
Lady Mary ..	50	3 5 0
Golden Gate ..	27	8 10 0
Prospect ..	16	1 14 9
Normanby ..	200	2 4 12
North Cue ..	29	2 0 0
Grant and Lempriere ..	38	0 17 21
Anglo-Saxon ..	50	2 16 0
Francis Reward ..	61	1 12 0
Queen of the May ..	50	1 18 0
Rising Sun ..	200	2 13 1
Campania ..	50	1 7 21
Eclipse ..	70	1 0 0
Homeward Bound ..	54	5 6 2
Standard ..	26	1 18 2

GOLD PRODUCE OF THE MURCHISON GOLD FIELD.

	Oss. dwts. grs.	£	s.	d.
1891 ..	2,064 8 16	7,844	16	11
1892 ..	24,356 9 12	92,554	12	1
1893 ..	21,210 8 22	80,599	13	11
1894 ..	52,946 6 11	201,196	0	7

Total .. 100,577 13 13 .. £382,195 3 6

The gold returns from the Murchison Mines for the first three months of 1895 have been as under:—

	Oss. dwts. grs.	£	s.	d.
January ..	4,337 4 10	16,481	8	10
February ..	6,114 19 4	23,236	16	10
March ..	4,810 18 3	18,281	8	10

Geraldton can be reached from Perth by either steamer or rail in a day at a cost of £3, thence to Mullewa (80 miles) per rail, after which there are 200 miles to travel by coach, a trip occupying three days, and costing from Mullewa £7. Freight from Mullewa to Cue is now (April) comparatively cheap, and the teamsters are striking against £18 per ton.

CORNWALL AND LIMITED LIABILITY.

INTERVIEW WITH CAPTAIN ARTHUR THOMAS.

THE conversion of the Dolcoath Mining Company from Cost-book to Limited Liability, and the probability of this move being followed by other concerns, continues to occupy considerable public attention not only in Cornwall but in many parts of the country and among men to whom home metalliferous mining has frequently presented itself as a worthy object of investment and speculation, but who have hesitated from plunging by reason of the financial conditions under which the Cornish mines have been worked. Our representative recently had an interview with Captain R. Arthur Thomas, who, in the absence of his father (Captain Josiah Thomas), is in charge of Dolcoath, and who will, without doubt, take up the position of manager of the famous old mine under the new company, his father having been promoted to the position of managing director. Captain Arthur Thomas has had considerable experience in the South African gold mines, and was at one time the manager of City and Suburban, and the experience gained there in regard to the more modern mechanical appliances in use on the Rand, coupled with his knowledge of the practical working of Cornish mines, will doubtless provide the new company with a valuable servant. Captain Thomas was engaged, when our representative called, on some plans and drawings, the nature of which it would be premature yet to disclose, but the outcome of which, in the course of a little while, will be seen at Dolcoath. Replying to a question as to what were the chief drawbacks in the mining operations of the county, Captain Thomas remarked: "As a general rule our mines are not efficiently equipped with modern machinery; that seems to me the gist of the whole thing. We don't look upon our mines in this county in the light of manufacturing of tin; we don't turn out the large quantities that we ought to do, considering the wealth of mineral we have at our disposal."

"But what is there to prevent your turning out large amounts of tin when you have it underground?"

"The shafts at the present time will not admit of very fast winding in the first place, and then the winding-engines in use at surface are not adapted for rapid work. They are capital engines for low-pressure steam, but to attempt to work them at very high-pressure would, I am afraid, be disastrous; they are not constructed for it, and it is not fair to expect it. Most of our mines have tremendous quantities of low-grade stuff, which ought to be returned, but under present conditions, would not pay the returning charges. If you compare the value, according to assay, of our stuff, taking the average of the principal mines, with the average value of the stuff in mines in any other country, you will find we stand very well indeed. That is, of course, with an average price for tin. I have not the figures by me at the present moment, but they are well worth comparing, and are very instructive, because they show that unless there are some extraordinary circumstances, we ought to be able to make very much better returns in Cornwall. There is no doubt in the world that managers in Cornwall have done capital work with bad tools, and when they get an opportunity of putting in a new class of machinery, they will not be behind in their results. We must remember that our mines are very old, and foreign mines have the advantage that they have been started and wholly laid out in comparatively recent times, and have thus been able to avail themselves of every improvement in machinery and in methods of development."

"You were saying just now that the shafts would not admit of fast winding. Do they differ from those abroad?"

"Our shafts are so crooked and so small, many of them, though they have been cut down and improved so far as that has been possible. Some of the old shafts were started by the old men, who had no idea at that time of the purposes for which they were likely to be used now. They were never started with the idea of their being used for mining at any depth. Fifty years ago nobody would have thought that Dolcoath would be 440

fathoms deep; but deep mining has proved successful, and that having been demonstrated, now is the time to raise the necessary capital to put in good shafts and first-class machinery, so that the development in depth may be still further continued. But I am satisfied that, as in other countries, so it must be here, that if we are to keep pace with the times we must turn out and treat much larger quantities of stuff. The pumping charges and the establishment charges will be practically the same, whether we turn out 20 tons or 50 tons. Another point is that our stuff now costs us a good deal of money to handle from the time it is broken to the time the dressing operations have concluded, and our aim must be to treat the stuff automatically. This is the idea which will be put into practice as far as is possible in the new scheme for Dolcoath."

"What do you think are the chances of getting outside people to invest in Cornish mines?"

"It is not as though we were working on an uncertain thing. Here we have the known lodes, well defined, running through the district, and I think their record is such as to command the confidence of the outside public. It is not as though we had only the back of a lode, and knew nothing more about it, as is often the case in foreign countries where thousands of pounds are often spent on the mere knowledge of the existence of the back of some lode which often cuts out after very little development."

MEETINGS OF MINING COMPANIES.

ANGLO-MEXICAN MINING COMPANY, LIMITED.

A promising new property.—Some encouraging assays.

THE ordinary general meeting of the shareholders in the Anglo-Mexican Mining Company (Limited) was held on Monday, at the Cannon-street Hotel, the chair being occupied by Mr. GEORGE HOPKINS, C.E.

The SECRETARY read the notice convening the meeting. The CHAIRMAN said: Gentlemen—I am afraid that my prolonged illness, which has been the cause of the delay in holding this meeting, has also been a cause of disappointment to you, and probably put you to some inconvenience. It has, however, this advantage—that we have information of a very recent date of all that is going on at the mines, and as to our immediate prospects. First, one word as to the Yedras Mine, where during the year under review we made a profit of £2569, subject to some reduction in exchange. Since that time, in consequence of the low price of lead and silver, we found that we were not working it at a profit, or at a very small profit, indeed, so that we determined to close the mine for the present, and it was shut down last January, and will have to remain closed until lead and silver advance in price. As regards the gold mine, the San José de Gracia, we have given you in the third paragraph a long list of the different works that have been done in equipping and preparing it for active work. The list, although a pretty long one, does not contain the whole of the works that have been done. For instance, in addition to those set out, I may mention that we have an electric plant, and we are, with the Mexican Government, constructing electric telegraphs from the mine to Culiacan. We are finding the wires, and the Government the posts and the fixing, and I think Mr. Hughes says the whole expense to this company will not exceed £250. When this is constructed it will put us in direct communication with the mines. I think you will agree with me that the last line of that paragraph is eminently satisfactory, as it states that the whole of those works which are set forth, in addition to the cost of the mine, have all been paid for out of revenue. You will notice in Mr. Hughes' report he says that he has made sufficient profit in the first year's working to pay the cost of the mine. Of course, to construct the several works, we had to get advances from our bankers, all of which have now been paid off, and what is equally satisfactory I trust to you, is that the loans—so-called debentures, although there never were any debentures actually issued—amounting to £10,000, have also been paid off, so that we have no debts whatever, except the current expenses, and we must be accumulating now a considerable sum of money. In order to pay for some of these works, I think you know already that our manager determined to send, and did send, some of the richest of the ores to San Francisco. You will notice in the fourth paragraph that up to the end of April the output from the mine amounted to about £118,000. Some of these shipments were exceedingly rich, one going as high as 500 ounces to the ton. That was exceptional, although there is one that went as high as 375 ounces to the ton, and another as high as 318 ounces. Those were not in particularly small quantities. The richest one that I have mentioned—namely, the one containing 500 ounces to the ton, consisted of more than a ton. In fact, the net proceeds, after paying all the cost of refining and smelters' expenses realised in round figures \$14,000. I think we have stated to you that the whole of the 200 tons which we sent to and sold at San Francisco realised an average of £135 per ton, which is equal to about 35 ounces per ton. Of course, the expenses connected with the shipment of these ores are heavy, because they have to be sent from the mines to San Francisco, but, after taking all those selected ores from the mine, you will note that what was left realised at the mill an average of \$60, or 3 ounces to the ton. Those figures, I think, will convince you that the ore we have there is of a very rich quality. I hope you have read very carefully the long and detailed report of Mr. Hughes. It is most instructive reading, and most satisfactory. We have to thank one of our shareholders (Professor Agassiz) for sending us a copy of a report which was made for him by Mr. James E. Mills, of San Francisco, who, I am told, is a most reliable person, and a man of very high character. You will have seen from that report that he confirms Mr. Hughes' opinion as to the value of the mine. I do not think it is worth my while taking up your time in going over the different items referred to by Mr. Hughes; it would be unnecessary for me to do so. Amongst other things, he has secured a large quantity of timber rights—a very important matter in a mining district—and there are a great many other things that he has done which all tend to improve our property. Speaking of the timber lands, he says:—"I have made a great many new locations for the company during the year, so that the total vein area acquired is now about four times the extent of the original purchase;" and later on he says:—"Also new locations have been made covering other veins, and although nothing is known concerning the latter, the value of the company's property has been greatly increased thereby, giving almost an unlimited field for future development work." At the date of his report (November, 1894) he estimated that we had 42,000 tons of ore in sight, worth about £400,000. The shareholders are under very great obligations to Mr. Hughes for having found out and secured this property for this company at a very moderate price. It should be borne in mind that we have got this additional property without increasing our capital one penny. We retain the old property, which is not very valuable at this time, in consequence of the low price of silver and lead, but we have got this gold mine also, which seems to be a particularly valuable one. A little later on I shall have the pleasure of proposing a resolution, voting something to Mr. Hughes for his action in this matter. Now, with regard to the question of dividends, I am not in a position to-day to say when we shall be able to declare any. I do not wish to commit myself to any date for fear that you should be disappointed, but all the reports which come to hand point to a position of affairs which will enable us to declare dividends at a very early date. There is one point to which I wish particularly to draw your attention, and that is the exceedingly low cost of extracting and working our ore. Mr. Hughes states in his report that when the

work of construction are completed, the cost will not exceed \$5 silver per ton. That is only about 11s. per ton. Now, if we can work that property at such a low cost and get such rich results as I have pointed out to you, and which are not mere assays, but actual results obtained from milling the ores on our own property and selling some in San Francisco, we should make very handsome profits indeed. As regards the accounts, I do not know that I need say much about them. Of course, they only go up to June 30 of last year, and that is one of the inconveniences attending the long delay in holding this meeting. We shall have our next meeting, I hope, pretty early in December, with our accounts made up to June 30 next, when we shall be in a better position to realise the exact state we are in. I suppose the meeting would be incomplete without mentioning the directors' fees. We have been in correspondence with the American shareholders upon that matter, and the outcome of it will be that the directors will make a considerable reduction in their fees, although, at the same time, we shall have to vote the Chairman of the committee in New York something for his services. Colonel Higginson, of Messrs. Lee, Higginson and Co., Boston, has been over in England, and was anxious to be at this meeting, but he had to go to Vienna. I had a letter from him two or three days ago, saying that he was afraid he could not get back in time, and that, under those circumstances, he should like, if we would adjourn the meeting for a week, to give him an opportunity of seeing you and bringing before you any business that he might think proper. Therefore, after we have done what is called the formal part of the business, I shall ask you to be kind enough to adjourn the meeting until this day week. With these remarks I beg to move—"That the report and accounts, now submitted, be received and adopted."

Mr. BROUGHTON seconded the motion.

Mr. LEWIS: I suppose we shall get the latest report from the mine at the adjourned meeting. Has Colonel Higginson been visiting the mine?

The CHAIRMAN: No; but we had a letter in this morning, dated New York, June 7, in which, amongst other things, the manager states that the output for the month of May was \$106,000 in United States gold coin, or something over £20,000.

Mr. LEWIS: Is that larger than usual?

The CHAIRMAN: Larger than the average—yes. There were 2100 tons treated, the mill running 28 days, which gives an average of 75 tons a day.

Mr. LEWIS: Can you give us any idea as to what Colonel Higginson's communication is likely to be? I understand he has had nothing to do with the mine.

The CHAIRMAN: He is a very large shareholder, holding over 30,000 shares. I think he wishes to speak about matters of administration.

Mr. LEWIS thought the news from the gold mine was distinctly of a pleasing character, and if the company was not so overloaded with capital their condition would be highly satisfactory.

The CHAIRMAN reminded the shareholders that had the price of silver remained at what it was when the mine was purchased they would have paid dividends of 10 per cent. up to the present time.

The motion for the adoption of the report and accounts was then put, and carried unanimously.

The CHAIRMAN moved that 5000 fully-paid shares of the company, of £1 each, be allotted to Mr. Hughes, the company's manager, as special remuneration for his services in securing for the company the San José de Gracia Mines, and that an agreement to this effect be filed with the Registrar of Joint Stock Companies. In moving the resolution, he said that the shareholders were undoubtedly under great obligations to Mr. Hughes for his services in securing the new property on such favourable terms.

Mr. LEWIS seconded the motion, which was put, and carried nem. con.

On the motion of Mr. BROUGHTON, seconded by Mr. W. LLOYD, Mr. George Hopkins was unanimously re-elected a director of the company.

The auditors, Messrs. Deloitte, Dever, Griffiths and Co., having been reappointed, the meeting was adjourned until the following Monday afternoon at two o'clock.

Subsequently an extraordinary general meeting was held for the purpose of considering and, if thought advisable, passing the following resolution:—

That the Articles of Association of the company be altered by adding immediately after Clause 155 thereof, a new clause as follows:—"156. The City of Culiacan, State of Sinaloa, Republic of Mexico, shall be the legal residence of the company in Mexico, and San José de Gracia, State of Sinaloa, Republic of Mexico, shall be and remain the local and administrative office."

The CHAIRMAN said: Gentlemen—I have much pleasure in moving that the Articles of Association be altered in the manner described in the resolution. The American committee and also the manager have written saying in the most urgent manner that it is absolutely necessary this step should be taken. We must have a legal residence, and it should be, as suggested, at Culiacan. We have questions arising at times—legal questions—which can far better be settled under those circumstances.

Mr. LLOYD seconded the motion, which was put, and carried unanimously.

A vote of thanks to the Chairman, cordially given on the motion of Mr. FRAED, concluded the proceedings.

WEST AUSTRALIAN MINING COMPANY, LIMITED.

Resolutions winding-up the company for reconstruction confirmed.

An extraordinary general meeting of the shareholders in the West Australian Mining Company (Limited) was held on Tuesday, at Winchester House, the chair being occupied by Mr. G. T. BEAN.

The SECRETARY (Mr. Charles Goodyear) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—You are aware that this is a meeting to confirm the resolutions passed at the meeting held on the 31st ult. On that occasion I explained that from the nature of our business we required a much larger working capital than we had had at command, and it was decided that in order to get the addition we should go into reconstruction in the form expressed in these resolutions, by which means we should have available about £54,000 for working capital, in addition to what we have at present. That will enable us to go on with the business, and make it even a greater success than it has been hitherto. We have already made, as you know, £30,000 on an available capital of £4000, and now we have a larger sum we shall have larger profits to divide. Already we have purchased an additional property. It is a very fine property indeed, and has many advantages which most of the mines brought out here are without. It is within a short distance of a public battery, where we can have our stuff crushed and treated without going to the expense of putting up our own plant. Consequently, we shall want very little capital for that matter. The property is situated on the Murchison, near Cue, and close to the Golden Dundee, one of the companies promoted by us. I may mention in regard to this company that the shares are already over-subscribed; in fact, they have gone to allotment, and even before that they were already crushing and getting gold. This new property of ours will be in exactly the same position, so you will see that we are very much alive and shall shortly have, in order to get rid of our money, to pay it away in dividends. This we shall do in distributions of not less, and possibly more, than 30 per cent. Out of the shares we have available for working capital a considerable portion are already applied for, and will be allotted, which will give us a considerable sum to go on with. Notwithstanding that our shares are quoted at something like 3s. 6d. to 4s., yet we can easily sell them at 5s., which shows that those who know something of this company are willing and ready to take large blocks of shares in it. The Chairman concluded by moving *seriatim* the confirmation of the resolutions winding-up the company for reconstruction.

The resolutions were duly seconded, and carried unanimously, and a vote of thanks to the Chairman terminated the proceedings.

ST. JOHN DEL REY MINING COMPANY, LIMITED.

The machinery working beautifully.—Comprehensive and satisfactory statement from the chair.

THE 64th ordinary general meeting of the shareholders of this company was held on Thursday, at the Cannon-street Hotel, the chair being occupied by Mr. F. TENDRON.

The SECRETARY (Mr. M. A. McCall) read the notice convening the meeting.

The CHAIRMAN, in moving the adoption of the report and accounts, said the shareholders would remember that the lode below the old mine was first cut in August, 1892, by means of a tunnel that was driven near the foot of the pumping shaft at a depth of 2150 feet from the surface. Since then the mine had been opened out, and they had obtained from it some 57,000 tons, of which 50,000 tons were stamped in the old and new mills, producing an amount of gold that averaged 41.6 per ton. The great feature in the new machinery, which was to give the company an advantage over the machinery employed in the early days of the mine before the fire, and in the second mine after the fire, was the power of hauling far more than the requirements of the company. In the second mine, which was worked for nearly 13 years, they were only able to haul an average of 5000 tons a month. They had stamping power in excess of that but not hauling power, and were, therefore, obliged to stamp the whole of the mineral raised, even though they knew that much of it would barely pay the milling cost. The new power was so much in excess of the company's requirements, and would probably be in excess of their requirements for so many years, that they were enabled to raise as much material as they required, and to reject, at the same time, all the kilas and inferior mineral that would not pay for working. This kilas and inferior mineral averaged about one-fifth of the stuff raised. They rejected like this some 15 to 20 per cent. of the stuff, and when the whole of the stamps were in operation no more than about 300 tons a working day would have to be raised to meet the requirements of the mill. The mill, as the shareholders knew, worked incessantly—364 days out of the 365; but the men only worked in the mine and at the hauling six days of the week, and, therefore, to enable the company to reject one-fifth of the stuff, it was necessary to draw and haul 300 tons a day. A telegram was received a few days ago announcing a record haulage of 326 tons in 12 hours. Shareholders might, therefore, set their minds at rest on this most important point—the power of the machinery to deliver to the mills the full amount of mineral that would be required for many years to come, for not only had they the power to haul in the D shaft—and in that shaft alone the mineral was hauled in the 12 hours he had mentioned—but they had hauling appliances in the pumping shaft as well. And the machinery worked beautifully. There was no fault whatever to find with it, either in design or workmanship, and the same might be said of the new mills. The surface works were sufficiently advanced to enable them to start 70 stamps, and instructions were conveyed to Mr. Chalmers—and reported to the shareholders at the last general meeting—that he must start at least 70 stamps at the earliest possible opportunity, so as to earn sufficient money for the requirements of the company, as the shareholders could not go on continually raising more capital. By the company's requirements was meant the money spent upon the ordinary working of the mine, also upon capital expenses, as well as to cover the debenture interest and the London expenses. By November in last year, then, he was enabled to start 70 stamps. At first certain minor difficulties were met with, and the amount treated by the stamps averaged 17 tons per stamp head per 24 hours. By successfully overcoming these minor difficulties, and especially by finding a Brazilian wool hard enough to bear the tremendous friction of the wire rope of the transmission machinery, Mr. Chalmers was able now to work the mills with a power that enabled him to treat 220 tons per stamp head each 24 hours. His power, in fact, would be sufficient to enable him to work half as much again but for the peculiarity of the Del Rey mineral. The difficulty against which they had to contend was that the Morro Velho gold was so exceedingly fine that unless the ore was crushed to an almost impalpable powder, the gold was not freed, and the quicksilver would not upon it if it were encased in pyrites. This was the difficulty, and they did not extract anything like the proportion of gold they used to in the old days. In those days they had 132 stamps going instead of 70, and as they only crushed the mineral at the rate of 1½ ton per stamp head per 24 hours, and with the lower stamping they were able to crush it to that exceeding fineness that it was almost an impalpable powder. Mr. Chalmers was bound to make every effort to extract the gold, and yet at the same time to do a duty of 2 tons per stamp, because the difference of ½ ton per stamp per 24 hours on the whole 100 stamps would mean something like £1000 a month. He had succeeded so far as to raise the value of the ore per ton from 42s. 6d. to 55s.—(applause)—and they could imagine the anxiety and work which had devolved upon Mr. Chalmers and the reduction officer in his efforts to bring about such a great improvement in the percentage of gold extracted, an improvement which had totally altered the prospects of the company from what they were in March last. (Applause.) It was a wonderful improvement, and he met the shareholders with much satisfaction and cheerfulness because of it. When a certain point of knowledge had been reached it did not die with the man who had originated it, but went on from generation to generation, and the knowledge of the past was always the inheritance of the people of the future, and once Mr. Chalmers had seen his way, as was now the case, to extract 72 per cent. of the gold, they were much more likely to rise to 80 per cent. than to retrograde. (Applause.) The concentrate tailings which had been treated during the last few months were rich in gold, and as they expected eventually to recover 85 per cent. of the contents, there remained, after the 72 per cent. had been extracted, some 10 per cent. which would have to be dealt with hereafter. This represented some 6s. 6d. per ton, and they looked forward to recovering it in the future. These concentrate tailings were far too valuable to be allowed to pass away like the ordinary tailings, and they were collected by Mr. Chalmers, who was having a dam constructed in a suitable portion of the property so as to store them under water, and keep them from oxidizing in the future, when they might be treated. He and the reduction officer had been experimenting with the small plant, and as soon as he had got his process perfected he would work his full plant and treat the whole of the tailings that will have been accumulated. So much for the operations up to the present time in regard to the hauling, mining, milling, and reduction. No doubt the shareholders would wish to know when the additional 30 stamps would be working, but they must wait patiently for that until Mr. Chalmers succeeded in tapping the water. As had been stated before at many meetings, there was an enormous quantity of water in the excavations—it might be 400,000 tons and it might be 500,000. Not a drop of this water had found its way to the shafts, into the boreholes, or into the new excavations, but if it were once set free uncontrolled it would have a terrific power. It might be safely tapped and dealt with, but only when under control, and the whole of Mr. Chalmers' talents and energies had been directed to that object. Owing to the old mining plans, which, having been made with instruments which were not perfect, would be readily conceived not to be perfect themselves, he had so far been unsuccessful. The measurements were shown to be incorrect, and the mine was shown not to be so deep as it was thought to be, which was a matter for satisfaction. The mine, moreover, was further east than it was formerly thought to be, while its underlie was much more southerly than was expected. It was not at first thought that the old excavations were so much out in depth as was afterwards proved to be the case, and as a new level would cost a great deal of money, Mr. Chalmers tried to drive a hole at an angle. His first three attempts ended in failure, in each case the borehole passed through the lode. After this his first thought was that he

should have to go higher and take a fresh survey, with the idea of taking the water out in two operations. As to this, however, he changed his mind, and decided to make another attempt from the same level, the result of which they were now awaiting. The shareholders need be under no apprehension as to any danger arising from the water. Its danger was fully apprehended and carefully guarded against, and it was only when this was not done that there was any real cause for apprehension. At the same time the shareholders would have to wait until the water was tapped before the additional 30 stamps could be set going. They were he believed, quite ready although no specific information had been received to that effect. It might be asked whether the machinery and appliances would not be strong enough to support a small accumulation of water, but the accumulation was not a small one. During the rainy seasons the accumulation was an enormous one, and if it were not kept under it would gradually rise until it reached the level, and would exert a pressure of 700 lbs. to the square inch, whereas Mr. Chalmers' appliances were only constructed to sustain a pressure of 750. Again it might be suggested that seeing that up to the present no inconvenience had been suffered from the water it should be 1 ft. alone. That was an idea not to be entertained for one moment. Personally, he would never submit to such a policy, which would endanger the lives of all the men in the mine. There was £350,000 worth of mineral to be taken out at some future time when the water was removed, and upon that the smallest possible calculation of profit was £150,000. The shareholders must have a little patience and wait until the water was removed. If Mr. Chalmers did not succeed in tapping it the fourth time, both the shafts of the mine would have to be deepened. This would mean an additional capital expenditure, and should be borne in mind in considering the figures in connection with the mine. The figures he proposed to give were based on actual experience, and were not merely prospective estimates. The 70 stamps working now would probably in the dry season treat 4500 tons a month. To keep that mineral up to the standard level would require a haulage of 5600 tons monthly. It was certain they could stamp 4500 tons, and by selection of the mineral they could recover at least 72 per cent. of the gold contents which would give 56s. a ton. As a basis of cost he had always given 20s. per ton in Brazil for raising mineral, and mining, hauling and milling it, and the salaries, general charges, and everything else appertaining to the working of the mine he had always put down at 20s. per ton on the mineral raised. The results might be better, but were not likely to be worse than this, for he kept on the safe side as far as possible in forming his estimates. This would bring the cost in Brazil for everything except capital account to £6000 a month. Debenture interest and London expenses amounted to £2400 a month, and this left as profit available for ordinary shareholding purposes £4200 a month upon 70 stamps. This was just about the average profit which the company earned after the fire for a period of nearly 13 years with 132 stamps working, and with the new hauling machinery erected at the time. It was everything to Mr. Chalmers' credit that with 70 stamps he was able to bring about the same result as with 132 stamps. If, however, the water was not tapped some expenditure must be undertaken either by fresh capital or by the use of the profits realised, for the necessary electrical machinery, for sinking the shafts, opening out new levels, building workshops, and concentrating tailings plant, and all those numberless expenses which were constantly arising in every mine. He could only hope that Mr. Chalmers would succeed in tapping the water this time, but he should not be discharging his duty if, when he had a satisfactory account to lay before the shareholders, he did not put before them perfectly clearly the possibility not of misfortune but of prosperity being delayed. He would go one step further and tell the shareholders what they might expect when the additional 30 stamps were put into operation. He had only put down these stamps as treating 1800 tons for the reason that during two or three months of the year they had a dry season, during which time some of the stamps might probably have to be hung-up. If, however, they treated 1800 tons, producing as much gold as from the other mineral, an additional £5000 would be realised, and this sum not having to bear milling costs, which were charged on the product of the other stamps, there would be £3500 a month available for distribution amongst the ordinary shareholders. It was with much pleasure that he had addressed the shareholders that day without asking for any money, and, in conclusion, he begged to move the adoption of the report and accounts.

Sir JOHN SWINBURNE seconded the resolution.

Mr. J. FORD congratulated the shareholders upon the satisfactory nature of the account laid before them, and said he had little doubt that in some two years' time the company would be earning dividends of from 25 to 30 per cent.

The CHAIRMAN, in answer to Mr. FORD, said that the board proposed, after having fully secured the financial position of the company, to divide what profits remained into two parts, one to be devoted to reducing the amount of the bond interest in suspense account, and the other distributed among the shareholders.

The motion for the adoption of the report and accounts was then put, and carried unanimously.

On the motion of the CHAIRMAN, seconded by Sir GEORGE HARRIS, Sir John Swinburne, Bart., was re-elected to a seat upon the board.

The CHAIRMAN moved a hearty vote of thanks to Mr. Chalmers, the secretary, and staff both abroad and in London, which was seconded by Mr. FORD, and carried unanimously.

Speaking in acknowledgment of a vote of thanks, the CHAIRMAN said the board intended to pursue that policy which they always had in view—that of taking the company out of the category of ordinary mining companies, and making it an investment company.

NUGGET EXPLORING COMPANY, LIMITED.

Dividends already in prospect.—The company's business developing.

The first ordinary general (or statutory) meeting of the shareholders in this company was held on Wednesday, at Winchester House, the chair being occupied by Mr. F. C. G. RITZO.

The SECRETARY (Mr. A. Farquharson Roberts) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—In compliance with the Companies Act we meet to-day to hold the first, or statutory, general meeting of the Nugget Exploring Company (Limited). This company was registered on February 19 last, and went to allotment on March 21. In spite of the short time which has elapsed since the allotment took place, I think we may be considered to have made great strides in the work necessary in order to achieve future success. (Hear, hear.) We have made financial arrangements by which we shall be able to command ample capital whenever we need it, and we have also appointed agents in all the great mining centres of the world. We have been very successful in obtaining the services of good agents. In Hobart we have Messrs. J. B. Roberts and Son, a well-known firm, highly experienced in business, and more particularly in mining business. In Perth we have Mr. Charles Berkeley Kidson, of the Inter-Colonial Investment, Land and Building Company, who is also Sergeant-at-Arms to the Parliament, and a most reliable and valuable agent. In Sydney, we have Mr. G. F. Ritzo, a civil engineer, who has been in the service of the New Zealand and New South Wales Governments for many years. These agents have shown their energy by the business they have already sent us over, and at the present time we have mining properties offered us from Coolgardie, South Africa, Tasmania, and elsewhere, all of which we shall be able to take up and carry through in some way or other. With regard to the administration, all I can say is that the economy of the London board and office will certainly be carried out to the fullest extent. We don't think it will be necessary to make a call for some time to come. (Hear, hear.) The board hope that any shareholders who may be able to introduce any good business will

bring it to us, so that we may take it into consideration and see if we can carry it out. When I meet you again I hope I shall be able to invite you to declare a dividend—(hear, hear)—having received an interim dividend in the meantime. There is not much that I can say to you now, because you must recollect that the antipodes are a very long way from us. The company has been formed to do business in the Australian colonies, Tasmania, and elsewhere, and it takes a considerable time to communicate with those places, so that as it is only about two months since we went to allotment there has hardly yet been time for us to get answers from our correspondents. Some good properties have been offered to us, but there are a great many other things about which we wish to have further information before we take possession of the properties.

Speaking in answer to a SHAREHOLDER, the CHAIRMAN said that the Ceylon Tea Trust would probably go to allotment on that day, and in the course of a week or two would make arrangements for taking possession of the properties.

A hearty vote of thanks to the Chairman concluded the proceedings.

THE EXPLORERS' SYNDICATE.

Position of the company encouraging.—An increase in the capital.

An extraordinary general meeting of the Explorers' Syndicate (Limited) was held on Tuesday, at Winchester House, Old Broad-street, E.C., for the purpose of considering a proposal to increase the capital.—Mr. EDWARD T. READ presided.

The SECRETARY (Mr. A. H. Oxenford) having read the notice convening the meeting,

The CHAIRMAN said: Gentlemen—When we last met, some three months ago, I did not then anticipate the pleasure of meeting you again so soon; but circumstances have occurred which have rendered it necessary. You will have seen from the notices you have received that the object of this meeting is to increase the capital of the company to £50,000 by the creation of 40,000 additional ordinary shares, to rank *pari passu* with the present ordinary share capital. I told you at our last meeting that our little syndicate had had a most successful career during the short time it had been in existence, and the board had then the pleasure of announcing an interim dividend of 10 per cent., which, you will remember, I told you might have been very much larger but for the fact of its being only an interim dividend. I mentioned that the profits up to that date would have admitted of a distribution at the rate of 100 per cent. per annum, but that your directors were obliged to await the completion of the financial year before declaring a larger dividend, and, therefore, simply made a distribution of 10 per cent. out of the profits of the first three months' working. Well, gentlemen, since that meeting our business has grown, and is still growing, with giant strides, and had we had the larger capital at our disposal we could have done ten times the amount of business we have done. The latest property in which we have interested ourselves, and which is shortly to be offered to the public under our auspices, is the Cue Victory Gold Mines (Limited), one of the best, if not the best, of the West Australian properties yet placed upon the English market. With the completion of this business and, subject to our carrying out some other very good business which we have in hand, but for which our having the increased capital at our command which we are asking you to sanction is necessary, we shall have in hand an amount of undivided profit, which, I think, will agreeably astonish you when our annual meeting is held at the end of the year. Some of our original shareholders are under the impression that they will be, to a certain extent, losers, owing to the new capital taking away or sharing in part of the present accrued profits; but I can assure them that such will not be the case, as the benefits and profits to be derived, and being derived from the proposed increased capital will more than make up for such division. We have, as you know, our own engineers prospecting in Western Australia on our behalf, and we have agents in that colony looking out on our behalf for anything cheap and good. Under these circumstances, it is not surprising; but, nevertheless, it has caused the directors great satisfaction to see the increasing favour with which the Explorers' Syndicate shares are daily being regarded by investors, and we have every confidence in the future, and expect to see our company ranking with the very best of the investment and exploration companies in Western Australia. The secretary has just returned from the North, where we have a great number of shareholders, and he will tell you that he has had a very satisfactory experience with them. The news from Western Australia, as you are aware, is of a sustained satisfactory character. Even the company which we regarded a short time ago as being in a very doubtful state—you all know the one to which I refer—has now turned out more satisfactory, and, I believe, from personal information, that, although the capital is a bit too large, it will yet turn out to be a paying mine, and that the shareholders will not have such a hard bargain as they at one time expected. As the time approaches for many of the companies launched here in the autumn of 1894 to show results from crashings, the confidence of those best able to judge is in no way diminished. Although the Premier (Sir John Forrest) said on May 8, at Perth, that he did not think the colony had started yet, it is very suggestive to note that the crashings of a few of the companies for the month of April last, as given in the *Australian Mail* of June 6, were 11,780 ounces, obtained from 7050 tons of ore. This gives an average yield per ton over the whole colony of about 1½ ounce; but, dealing only with the crashings of companies known on the London market, we have 2731 tons of quartz crashed during April, realising 5582 ounces of gold, or an average of rather over 2 ounces of gold per ton. Considering that Western Australia as a gold field is still in its infancy, I think that this is a highly satisfactory return. Mr. Calvert, at a dinner given in his honour at the Imperial Institute the other day, stated that the returns from Western Australia for the year 1894 were over 200,000 ounces, and he went on to state—and he is a recognised authority on the subject—that he had no doubt that this year the returns would be more than double that. (Applause.) As I said before, taking the crashings as a whole, they give 2 ounces to the ton, and I would ask you what would such a return mean to some of the South African companies whose shares command 400 to 500 per cent. premium, when we bear in mind that an average return of 16 dwts. to 18 dwts. in that country is considered very good? We know that a considerable part of Western Australia is at present, or has been until lately, very hard up for water; but that is only a temporary drawback. In other gold fields initial difficulties such as these have always been overcome by the aid of science, and I believe it will be so in Western Australia. (Hear, hear.) Without trespassing further upon your time, I beg to move the following resolutions:—

- (1) That the capital be increased to £50,000 by the creation of 40,000 new shares of £1 each.
- (2) That the new shares shall be ordinary shares, and shall rank *pari passu* with the existing ordinary shares of the company.
- (3) That the directors be, and they are hereby, authorised to issue the said new shares to such persons, and to be paid for by such instalments or otherwise, as they think fit, after having first offered the same to the existing members of the company.

I think, gentlemen, it is only fair that we should offer the shares to our present shareholders. After that we shall hold ourselves at liberty, as stated in the resolution, to deal with them as we think best in the interests of the company. (Applause.)

Mr. TIDD, in seconding the motion, remarked that the increased capital would put the directors in a position to take advantage of any opportunity for business that might offer.

A SHAREHOLDER enquired what relation the founders' shares would bear to the new capital.

The CHAIRMAN said the position in that matter would remain the same—they would be entitled to one-half the surplus profits after 10 per cent. had been paid on the ordinary shares.

The motion was then put, and carried unanimously.

The CHAIRMAN, in reply to a SHAREHOLDER, said he hoped the increase of capital would enable the company to obtain a quotation on the Stock Exchange, and that that quotation would be a satisfactory price. (Applause.)
The proceedings terminated with a vote of thanks to the Chairman.

THE KANGARILLA SILVER MINES, LIMITED.

Remarkable energy on the part of the board.—
Testing the French-Stewart process.

The second ordinary general meeting of the Kangarilla Silver Mines (Limited) was held on Wednesday, at the Cannon-street Hotel, the chair being occupied by Mr. OLIVER HENRY DAVIS, C.C.

The SECRETARY (Mr. Joseph Robertson) read the notice convening the meeting.

The CHAIRMAN, in moving the adoption of the report and accounts, said the new board had worked energetically and harmoniously together during the past twelve months to further the interests of the company, and whether the result was satisfactory or not the shareholders must decide. At the outset all their exertions were directed towards getting the priority shares taken up, to which end he (the Chairman) travelled to Glasgow, held a meeting there and interviewed a number of the proprietors. To a certain extent the efforts of the board were successful, and, having at the outset determined not to proceed unless 8000 were taken up, they found themselves within 474 of that number, which difference the directors themselves guaranteed, but which were afterwards applied for and allotted. After that there came the question as to when operations should be started and, first, they had to find a suitable manager to take charge of the company's works in South Australia. Eventually on the recommendation of Professor Sexton, supplemented by that of the French-Stewart Process Company, Mr. H. G. Thorpe was engaged, and sailed for Adelaide, where he landed on October 8. This having been done, the French-Stewart process people were approached in Glasgow to see whether the company could not get rather better terms, the directors being anxious to save the company every shilling possible. With this object in view, he (the speaker) proceeded to Glasgow, and succeeded ultimately in obtaining a reduction of the terms in favour of the company. At his suggestion, moreover, the plans and tracings were amplified, and sent to Australia, duplicates, of course, being retained in London. Upon his arrival in the colony, Mr. Thorpe at once proceeded to obtain tenders for the construction of the furnace; but when the board received a telegram stating what the cost would be, they were very much surprised at its magnitude. In the estimates they had formed of the probable cost a very liberal margin had been allowed for the difference in wages and materials at home and abroad, but they were not prepared for double. They refused to accept these terms, and thus caused a little delay; but, on the other hand, the work was done at half the cost, and the furnace was put up under the superintendence of Mr. Thorpe, who would afterwards have to work it.

Another advantage of this arrangement was that there were no extras, which would certainly have been the case had the work been done by a colonial builder. What would otherwise have cost £750 they had obtained from £500, of which £50 was expended upon building a shed. The board also thought they might possibly be able to get the ironwork more cheaply and better at Glasgow than in Australia, which was done, and it was found that a considerable saving was thus effected, after paying the 25 per cent. duty on taking it into the colony. No delay or trouble was experienced, and he now had the pleasure to inform the shareholders that the furnace was quite completed, and that the first trial had been made. At this trial what was used was only the rough tailings that had been lying about on the surface from two and a-half to three years. According to a cable the silver extracted was equal to 44 per cent. Some disadvantage naturally attended the use of the machinery for the first time, some of the vats soaking a good deal. The result of the trial was considered to be highly satisfactory considering that the size of the ore crushed was not a good one. The next thing to proceed with was the development of the mine, and in that matter Mr. Alford's experience was very useful to the company. He offered to take some additional shares if some money were spent in development; for if better ore was to be got lower down he did not see the policy of wasting time upon stuff which had been exposed for a long time on the surface. If the results reported had been obtained from rough stuff which had been exposed in the manner indicated, some of a much more favourable character could be obtained from the other ores. The present position of the company seemed to be that they had got their furnace, their chemist, and their ore—that at the greater depth of a very satisfactory character. The question then arose as to the necessity of placing the remainder of the priority shares. The board had done their best in this matter, having pressed both their friends and other shareholders with whom they had been in communication to come forward and take them, and now the debenture debt was all cleared off the company would undoubtedly be in a much better position. They had encountered great difficulties in certain quarters in regard to this matter, but it was done, and so far as the debenture-holders were concerned, the mine was now quite free from any liability. The company had been highly fortunate in times of emergency in finding friends to come forward and assist them, and he was glad to think that at last the mine would have a fair chance, which he was inclined to believe it had never before had. He himself was a strong advocate of economy, and the policy of the board had certainly been in that direction, the resources of the company having been husbanded with the greatest care. More than 40 board meetings had been held during the year, and he should be sorry to say the number of times he had called on the secretary, or the secretary upon him. The only thing now needed was the assistance of the shareholders in taking up the priority shares, and if this were done he felt exceedingly hopeful as to the future. The Chairman, in conclusion, pointed to the appreciation of the value of the company's shares in the market as a sign that outside opinion was regarding the position of the company with much greater favour, and he could only say that it would be the proudest day of his life when he was able to sign dividend warrants, not only upon the priority shares, but upon the ordinary shares also.

Mr. ALFORD, in seconding the motion for the adoption of the report, said he regarded the work which had been done during the year as being of the greatest importance, showing as it did that they had a mine of permanent value. He recommended that sinking should be carried on, and thought they only had to go down to water level to get richer ore. They had an exceedingly valuable mine that only required development to make it profitable to the shareholders. It should also be remembered that the extent of the company's property was considerable, and that while they were at present only working in the centre of it, prospectors had verified the existence of outcrops on the other portions. All things considered—the nature of the ore especially, and the fact that the men working the plant were new to it—he thought the results of the trial crushing were entirely satisfactory.

Mr. MOON pointed out that if the shareholders only took 4 per cent. of their holding in priority shares the board would be able to place the whole of the number at their command.

Mr. WATSON congratulated the company on the satisfactory nature of the report presented, and said the shareholders might remain confident that the rest of their money would be well and wisely spent.

Mr. STEWART, in answer to some questions relating to the French-Stewart process, said he attributed the fact that the extraction at the recent test had not reached a higher figure to the circumstance that the ore was not crushed to the proper mesh. Some experiments would have to be undertaken in order to determine the most suitable mesh.

The motion for the adoption of the report and accounts was then put, and carried unanimously, and the retiring director, Mr. Davis, having been re-elected, the election of Mr. Robertson to the office having been confirmed, and the auditors re-appointed, the proceedings terminated with a vote of thanks to the Chairman.

BRITISH BROKEN HILL PROPRIETARY COMPANY, LIMITED.

The conversion scheme.—The sulphides looking well.

The fourteenth ordinary general meeting of the shareholders of the British Broken Hill Proprietary Company (Limited), was held on Tuesday at Winchester House, the chair being occupied by Mr. E. RUSSELL ROBERTS.

The SECRETARY (Mr. H. Kendrick) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—I have now to move the adoption of the report and accounts submitted to you. I was very sorry not to be here at the last half-yearly meeting. I was detained abroad on important business; but Mr. Rouse was good enough to take my place, and from the report of the meeting which I have read, I am sure he did it much more efficiently than I should have done had I been present. In regard to the report, probably you may be a little disappointed that we have not done more than we have over in the colonies. However, the details of the work done up to the end of the last half-year are before you, contained in the mine manager's report, and you will see that—what has always been a difficulty in this particular mine—the lode is not at all continuous, but apt to get broken up; when there is a difficulty in following it. Rich patches occur, which hold out great hopes of success, and suddenly they pinch out and come to nothing. Then we make new discoveries elsewhere, and during the last few months with which this report deals, many of these discoveries have been made, and have come to nothing at all. This has turned our attention very much to the question of sulphides, as to which we have stronger hopes, as the lodes do not seem to be so discontinuous as those of the carbonate and oxide bodies. During the half-year the ore that we brought to bank was 2718 tons, and we had a quantity of ore in hand which you will see valued in the accounts at £5750. As regards our liquid assets, this report is, I think you will admit, entirely of a satisfactory character. If you will turn to the balance-sheet and look on the right-hand side at the ore in stock at the mine, sundry debtors, and investments, you will find that, deducting the £1370 on the other side of the sheet against sundry creditors, we have liquid assets to the amount of £43,190. That was the case on December 31, and carrying that forward down to the present time, and reckoning the ore which has been turned out since, I think we can say that our position as to liquid assets is still more favourable. I have calculated it out with some care, and I arrive at a figure which is considerably over £50,000. (Applause.) That, therefore, represents our liquid assets, and forms a very valuable working capital to prosecute whatever enterprise, whether in mining or the treatment of sulphides, we think it desirable to undertake. You will see that on page 10 of the report the manager says that 105 tons were sold to Block 14 for £869, and that, after paying all charges that fell upon us, there was a net profit of £6 4s. 6d. per ton. Though the directors in Adelaide think that the ore in stock there is worth about £7000, we think it desirable here to put the lower figure, as the ore had not been sold and we did not know what was going to happen to the silver and lead market. I may say that there have been further shipments recently to Block 14 on the same basis of price, but owing to improved values of lead and silver, we shall get a higher price in the future. I don't think there is anything further of a practical character that I need comment on in this account; but you will see there are enormous items—probably larger than has ever before been presented to a public meeting—£958,252 for depreciation. The particulars of that matter are given you on the last page of the report, and it consists of capital which has been lost, or which is incapable of being realised to that amount, distributed over all these items, and it represents what we have been obliged to write off in order to bring down the capital and our assets to about equal figures. In red ink, at the foot of the balance-sheet, you will see what the effect will be of the order of the Court sanctioning this reduction. All this depreciation being struck off, and also the development account which we cannot properly calculate as an asset, together with the losses which have been incurred—£40,000, prior to our taking office—this will bring the assets down to £265,000, and that amount is made up by the total capital of the reduced shares of £1 and 8s. In the future the accounts of the company will be presented in that manner and will be based on those figures. Very little arises on the working account, for there has not been a very great amount of work done. We have not thought it right to sell the ore at grass until we could get profitable prices for it. You will, however, see on the left hand margin in red ink the amount spent simply in development. We have not done much except development. At the last half-yearly meeting you will remember that Mr. Brandon was able to give you his experiences during a recent visit to the mine, and a statement as to the bodies of ore we have in reserve, carbonate and oxide ores, which he considered to be of very great value. Probably you have had these reserves in your mind, and we trust that we shall shortly be able to utilise them profitably. They were the bodies of ore which we expected to sell to the Proprietary Company at a fair profit, but which the Proprietary Company afterwards refused to take. No further question arises, I think, on this account, but I shall be very glad to answer any queries which may be put to me. The conversion scheme, to which I have alluded, was carried, and it has been carried through at a very small cost. Our solicitor, Mr. Sydney Smith, promised us that it should not go much over £100, and the whole expense has been under £110—(applause)—excepting, of course, the office work, which has been extremely heavy, as you might imagine. Dealing with such a large number of shares as that represented by £300,000 has occasioned a very great deal of detail work, and has required an extraordinary amount of accuracy and ability, qualities which have been shown in a liberal degree by the secretary, Mr. Kendrick. We on the board—and I think the shareholders will be of the same opinion—consider that we owe him our thanks for the labour he has so cheerfully undertaken. All these things I mention to show the position of the company at the present time. We are here with a reduced capital, and with everything fairly in order. The report calls the attention of the shareholders to the conversion scheme, and requests them to send in all their share certificates for conversion. Already the shareholders have done so to a very considerable extent. I may mention that out of 143,000 shares here in England, 94,000, or about 60 per cent., have been sent in for conversion, and the new certificates have been issued, or are ready to be issued. As to the privileged shares, out of a total of 20,000 held in England, about 14,000 have been sent in for conversion; or about the same proportion. It will, I think, further the convenience of everybody if those who have not yet sent in their certificates for conversion would do so at an early date. Perhaps I may also mention, in regard to the proportion of the capital of the company held here and in the colonies, that with regard to the taking both classes together, out of the whole capital of £264,000, £152,000 is held in England and £112,000 in the colonies. With regard to the investments we hesitated very much, seeing how high everything was, whether to invest at all. We were, however, driven to it when our bankers offered us 10s. per cent. for allowing our money to remain there. Eventually we invested it in the securities mentioned in the preceding balance-sheet, and so far our selection has answered well, for they are now worth £1000 more than when we bought them. (Applause.) With regard to the present condition of our mine and its future prospects, I have already spoken of the carbonate and oxide bodies as not looking very promising at present. Mr. Woodhead, who has been a great deal at the mine and knows a great deal about it, goes very fully into the matter in his reports to us. He is now relying much more on the sulphide ores than on those which I have mentioned, and if a good process of treatment can be discovered for those a very great deal may be expected from them. Many processes have been offered to us, both in England and abroad, some of which have presented features of great promise; some more or less certain, some more or less promising. One of them is claimed to be superior in that both the silver and

sine are said to be saved. We intend to prosecute that one, and terms have been arranged which should put us in a better position than other companies in dealing with our ores should the process turn out well.

Mr. BRANDON, in seconding the resolution, said: The latest news from the mine, under date May 13, is that on our boundary with the Junction Mine there is a promising body of ore running into our ground south of Retalick's shaft on their 180 level, and another large body of sulphide on their 300 feet level. Arrangements have, therefore, been made with the Junction Company to test this ground from their shaft, and thereby save the expense of sinking Marsh shaft another 100 feet until we know its value. At the other end of our property—Howell's shaft at the 240 feet level—the manager writes:—"The first 20 feet passed through magnificent sulphide ore, a good deal of which was in cubical form, and it averaged 52 per cent of lead, 14 per cent. of zinc, and 9 ounces silver. The drive is now in about 40 feet, and the face this morning looks as strong as ever." In the Marsh shaft we continue to raise small quantities of carbonate ore, particularly good in silver, and this is what we are now selling to Block 14. We are giving every consideration to the all-important sulphide question, and have started raising this class of ore preparatory to adopting one of the many methods now being practically tested both in Europe and the colonies. Your directors are fully alive to the great importance of these several experiments, and so long as other mines were willing to test them, we have not been anxious to rush into what may turn out unprofitable expenditure, but the time has arrived for more decided action, and two processes are now under consideration that have all the appearance of success; indeed, they look so promising that steps are being taken to at once test some of our sulphides in the presence of experienced experts nominated by your board, who have made a preliminary arrangement to adopt one of them if found workable on a commercial scale. Our colonial directors are also very active in these matters, and recommend that with the object of discovering the best process of dressing our ores, in order to make them marketable, it is advisable to have good-sized sample lots treated by the different processes, and compare the results. Already some of the Barrier mines have demonstrated that by mechanical means a portion of the valuable contents of this hitherto intractable mineral can be saved and leave a fair margin of profit. The South Mine were the first to erect machinery for treating these refractory sulphides, and have met with such success that the plant has only lately been duplicated, and it is now capable of dealing with 1600 tons of crude ore weekly. Another company followed, with a complete plant, which can treat 1200 tons. Block 10 has also a small plant of 400 tons capacity per week, and they are erecting a plant capable of doing 2000 tons. At the big Proprietary Mine they are treating considerable quantities, and the Junction Mine, which adjoins ours, has nearly completed a plant to treat 500 tons. The Central has also the matter under consideration. All these processes are, however, very far from complete, as ore, showing an assay value in silver, lead, and zinc of from £6 to £12 per ton, is treated at an enormous sacrifice, as all the zinc which alone should pay expenses is entirely lost, together with a heavy percentage of lead. Roughly speaking, the sulphides of the Barrier ranges contain zinc of the assay value of from £3 10s. to £5 per ton, and it is with the view of saving this hitherto wasted product that we are now examining several lately-patented processes that claim to have successfully accomplished this. If our experts and metallurgists satisfy us that any of these methods are good and workable on a large scale, we shall not be long in adopting one of them. Personally, I can say that no time or trouble is being spared in thoroughly investigating them, in hope that substantial results will accrue to the company, and thereby bring about a result we have so long and anxiously waited for.

The motion for the adoption of the report and accounts was then put, and carried unanimously.

The retiring directors—Messrs. Woodhead and Brandon—having been re-elected, and the auditors having been reappointed, the proceedings terminated in the usual manner.

GRESHAM GOLD EXPLORING SYNDICATE.

An increase in the capital.—The properties under option.

An extraordinary general meeting of the Gresham Gold Exploring Syndicate (Limited) was held on Monday, at 13 and 14, Abchurch Lane, E.C., Mr. JAMES J. WALLACE (Chairman of the syndicate) presiding.

Mr. T. H. CARLTON LEVICK (manager and secretary) read the notice calling the meeting.

The CHAIRMAN said: I do not think, gentlemen, it is necessary to go into further details, as I explained the matter before us so fully at our first meeting. I think you will all agree with me that it is very desirable the capital of the company should be increased, because it will give us a great many facilities for acquiring larger estates than we could when we were working with only £1500 of capital. I have, therefore, only now to propose the confirmation of the following resolution, which was passed at the extraordinary general meeting of the company held on the 30th ult.:—"That the capital of the company be increased to £50,000 by the creation of 48,500 new shares of £1 each."

Mr. FREDERICK S. BOULLY seconded the resolution, which was put, and agreed to without dissent.

The CHAIRMAN said: I am rather going to talk to you now in an informal way. Now that the resolution is confirmed, in the first place, I may mention that, amongst our friends, up to the present moment we have already had numerous applications for the shares. We have not been able to send out the prospectuses largely, because, as a matter of fact, they were not quite correct, and we have been rather waiting to learn what Mr. Gray was doing. The prospectuses are now complete, and any original shareholder of the company can obtain them on application to the secretary. The Chairman then read extracts from the cables recently received from Mr. Gray, from Coolgardie, giving particulars of two properties which Mr. Gray, in conjunction with Mr. Fearby, had examined, and upon which the directors had taken the necessary steps to secure an option for several months. Mr. Gray's cable report read as follows:—

After making a searching examination, together with Mr. Fearby, we strongly recommend the purchase of the Mount Whitehead. The mine is 20 miles from the Kintore Mine, and the property comprises 18 acres. There are two shafts in the mine, each of them 30 feet deep, average width of vein is 4 feet. Measurements of the dump showed it to contain 22 tons of ore. Assays from this average 11 ounces 10 dwts. per ton. The estimated amount of ore in sight is 2300 tons, which, estimated upon the basis of only 5 ounces per ton, gives an estimated value of £10,000. We also strongly recommend the purchase of the Sultan Mine. The property comprises 12 acres, the shaft has been sunk 70 feet, average width of vein is 2 feet 6 inches. Average assay of 13 tons of ore on the dump gave 16 ounces per ton. The mine is three miles from the Mount Whitehead Mine. The locality is very suitable for the purpose of erecting a dam for reservoir.

The Chairman explained that the syndicate would make further developments, and endeavour to thoroughly open up the mine, so as to more definitely prove the value of the properties before forming a subsidiary company to take them over.

Mr. FREDERICK HOVENDEX: I think it is due from me, on the part of the shareholders, to thank the directors for what is their remarkable success so far, in the handsome dividends already declared. There is one suggestion which you may permit me to make, and, in fact, you foreshadowed it in regard to the conduct of your future proceedings—viz., that in any fresh mines you are about to put before the public you should do some considerable amount of development work. I think a certain amount of risk must be taken by the syndicate, so as to put before the public a mine thoroughly proved up to a certain point. I do not mean to say that you should be in a position to absolutely prove the entire riches of a mine, but to so far prove it as to show it is a very good venture for the public to invest in. The Kintore has turned out, so far as we can see, eminent successful. I have to congratulate you on the success up till now and I only hope it will be very much greater in the future. My own belief is that there is in Western Australia an almost unlimited field

for enterprise. The present Governor, at the Colonial Institute the other day, stated that there were already 1,000,000 square miles of auriferous country declared as a gold field, and with such a field as that, the present knowledge I believe, is only a fraction of what the future knowledge will be. I believe you have a magnificent future before you, if you will only apply your energies in the future as you have in the past, so as to make the company a great success. (Applause.)

The vote of thanks was duly seconded, and carried.

The CHAIRMAN: I think what Mr. Hovenden has said is very much to the point, because one of our objects in increasing the capital of the company was that when we buy a property, as we have bought the Mount Whitehead, we should be able to pay the money ourselves, get possession of it, and develop it more. If we do that we may be able to sell it for as much again. It is much better, of course, to be able to pay the amount right out, and I think that my co-directors feel very much as I do in that respect—that if we can only get a good mine, and develop it before we give it to the public, we shall make a great deal more money. (Applause.) With regard to Mr. Gray, I think he has been searching all through the Coolgardie district for a distinct vein, and I believe when he came across this quartz vein, which he says is about 3 feet wide and continues, he thought it very much better than many others where they say they have 18 feet or 20 feet in width, but which are composed of little leaders, which are not always found to be satisfactory. The material, as far as I can see, is a beautiful material for crushing. You can crush it as fine as the finest powder. (Applause.)

The proceedings then terminated.

KINTORE GOLD MINES.

The property developing.—The machinery question.

The first general (statutory) meeting of the Kintore Gold Mines (Limited) was held on Wednesday, at Winchester House, Old Broad-street, E.C., Mr. JAMES J. WALLIS presiding.

The SECRETARY (Mr. T. H. Carlton Levick) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—As you are all aware, this is the statutory meeting of the company, and though we are very much obliged to the framers of the Companies Acts for giving us an opportunity of seeing our shareholders within four months of the registration of the company, it is hardly long enough, if the company is formed in connection with Western Australia. It forces us to use the cable more than is desirable, and, as you all know, it takes a month to receive a letter from that part of the world. I have very much pleasure in informing you that amongst our own friends and clients we placed 30,900 shares, which have given us £18,400 for working capital, leaving us 6600 shares in reserve. We managed to do this without advertising, but eventually we did advertise, not for the purpose of selling our shares, but rather to comply with the wish of the Stock Exchange, and also with the agreement we had made with the vendors. I have to report that we have paid for the mine, and that the leases have been transferred. We have here a plan of which we call the Kintore Gold Mines, but really the Kintore Gold Mine is the one in the centre. The one above is called the Carrington, and the one below is known as the Dunedin, being altogether about 39 acres. We have received several reports from Mr. Gray, the engineer of the Gresham Syndicate. Writing on 5th April, 1895, he said:—"My aim has been to open up and disclose the (Kintore) vein, and, if possible, prove that it continued into the north and south blocks. First we traced it south of the shaft on Kintore, 150 feet from the shaft, later it has been found on the north block, No. 1602." On 11th April he wrote:—"A surface outcrop (has been found) due north, on the supposed line of Kintore reef, on which very good surface stone was found carrying fine gold. This outcrop is south-east of the north-west peg on the Carrington. This lease is pegged well, taking in the underlay (it is) probably a continuation of Kintore (reef), being curious formation of cemented quartz. Kintore had the same at surface. On Dunedin not traced yet, country very hard and requires deeper prospecting." On 19th April he said: "Work continues very satisfactorily, and sinking proceeding on Kintore shaft, as well as on northern block." He also states that Mr. Fearby, who was one of our engineers, and is an engineer of the Gresham Syndicate, was recently at the mine, and reported to him, "Your men have got some very fine stone in the trench in the north block. They have not yet got the reef, but I think it cannot be far off, for the blocks of stone are 1 cwt. in size, and they are showing a deal of fine gold. Leith and his mate are going to sink down alongside of the reef in the main shaft, leaving the reef standing. I brought in a splendid stone from the main reef." On April 26, Mr. Gray wrote: "Work proceeds on the Kintore, and am sinking on the Kintore proper, also on new discovery on north block, as well as tracing reef to the south. Mr. Gray sent us 2 cwt. of stone, the assay of which, by the Economic Gold Extraction Company, gave 24 ounces of gold and 2 ounces of silver. The tailings were assayed afterwards, and gave 1 ounce 19 dwts.; a second time they assayed another ounce of fine gold, and, treated a third time, the tailings assayed 3 dwts., so that we extracted from the ore 99.7 per cent. of the gold that was in it. It may interest some of you who have not seen the samples of the stone here to examine them afterwards. I may mention that we have asked our engineers to develop the property as thoroughly as possible, and they have asked us to send out all the designs we can for the different kinds of engines and machinery, because they are of opinion that it is far better for them to see the various kinds of machinery which is being supplied. At the same time Mr. Gray is of opinion that it is much better to wait a little time before ordering any machinery at all, because a great many people will be trying experiments, and the longer we can delay—in reason—the better, because the railway will approach nearer to Coolgardie, and the cost at present of taking machinery from Perth to several of the mining districts amounts to between £17 and £25 per ton, so that if you have 200 or 300 tons of machinery, it means a most serious expense. Therefore, whatever we can save, even at the cost of a little delay, will be advantageous to us. We have also appointed a manager at the mine—a man who was very strongly recommended to us—and until he took charge of the mine, Mr. Gray very kindly undertook to see that all was going on properly. I should like also to draw your attention to the question of water. I think, from what I know of other mines, that we are almost certain to get water—it may not, perhaps, be at a less depth than 120 or 125 feet, but that we shall get it I have no doubt. I notice also from the reports which are continually coming from the other side—and particularly from the Custom House reports—that from the Coolgardie district alone, rather more than 10,000 ounces of gold were taken in the month of April this year. I also notice that the total quantity from Western Australia during the month of April from all the various mines was 20,000 ounces. Last year about 200,000 ounces of gold were produced in the West Australian district, and I believe that some of the best experts are of opinion that that will be doubled this year. Of course, everybody is exceedingly anxious to see what the autumn will produce. A great deal of machinery has already been sent out, and a great number of mines will be crushing ore. I believe that Mr. Calvert estimates that the general run of the ore will be something like 2 ounces to the ton. That is his opinion, and I believe that he is a very good authority. You will have noticed the other day how very strongly Sir William Robinson and Mr. Cooper spoke of the prospects of Western Australia, so that when we look at our own mine and remember how very cheaply we purchased it, and what a very large amount of capital we have in comparison with most mines, I think you will all come to the same conclusion as I do—that we have in the Kintore every prospect of great success. I am quite sure you may rely upon my brother directors and myself devoting our time most zealously in your interests, and in order to promote the good of the company. (Applause.)

Mr. FREDERICK HOVENDEN said that though this was only a formal meeting, he wished to congratulate the shareholders upon having a very valuable property. This mine, as they all knew, was the

outcome of a venture of the Gresham Gold Syndicate, a company formed for the purpose of developing these properties. That company held a meeting recently for the purpose of increasing its capital, and on that occasion he had an opportunity of saying a few words, but, unfortunately, what he said had been somewhat exaggerated, and he was glad to take this opportunity of correcting the mistake. On that occasion he stated that Sir William Robinson, the present Governor of Western Australia, at a recent meeting at the Colonial Institute said that the gold fields were now known to exist to the extent of 100,000 square miles, but he (Mr. Hovenden) was, unfortunately, reported as having stated that the area was 1,000,000 square miles. That was a tremendous difference, and he hoped it would be corrected. He (Mr. Hovenden) rather understated what Sir William Robinson had said at the Colonial Institute. Sir William there said: "It has now been pretty conclusively demonstrated that the Marchion and Coolgardie fields are practically one, together comprising an auriferous area of over 100,000 square miles, or more than three times the size of Ireland." Now, that was an enormous area of gold-bearing country; and when he informed his friends who might not know so much of Western Australia as he did that there were also three other gold fields already declared—the Kimberley, of 47,000 square miles; the Pilbarra, of 33,000 square miles; and the Ashburton, of 8200 square miles—making altogether 88,200 square miles; they would see that they were very nearly approaching an area of another 100,000 square miles. Further than that, information was coming in that these gold fields, which existed from the extreme north to the extreme south, were gradually meeting each other, and the evidence, therefore, rather tended to the probability that three parts of Western Australia was auriferous country. When they bore in mind that Western Australia was one of the largest tracts of the surface of the earth, being over a million square miles in extent, the probability was that they had a rich country, which, as a gold-producing power, was perfectly unparalleled in the history of the world. He trusted that might turn out to be the case, because the trouble they were suffering from at the present time was not having a ratio of currency for the exchange of commodities. If this country turned out to be as rich as was hoped, it would be a great relief to them commercially.

A vote of thanks to the Chairman and directors, heartily given on the motion of Mr. J. A. GARLE, seconded by Mr. SCHMITTEAU, terminated the proceedings.

RANDFONTEIN ESTATES GOLD MINING COMPANY.

Considerable progress made in development.—A vast property.

The fifth annual general meeting of shareholders in the Randfontein Estates Gold Mining Company, Witwatersrand (Limited), was held on May 24, at the company's office, No. 37, Robinson's-buildings, Johannesburg, S.A.R., Mr. J. S. W. LANGERMAN in the chair.

The CHAIRMAN, in formally moving the adoption of the report and accounts said: It will be unnecessary for me, in the light of the recent changes which this company has undergone—whereby it has disposed of the mine which had been worked for some years past, and to which I shall refer later on—to go into the figures of the statements now laid before you. Those statements are sufficiently clear, and afford ample information as to the details of the work done during the past year. Generally, I may say that considerable progress has been made in the development of the mine, the profits have increased, and the working cost has been reduced. I wish, however, to specially draw your attention to the general manager's report, which not only deals exhaustively with the operations of the past year, but reports most fully on the different farms forming the estate owned by the company, their situation, extent, and capabilities, with their future prospects. I shall not take up much of your time by endeavouring to amplify the information afforded us by the report; still, I consider it necessary to give you briefly an idea of the vastness of your property. As you are aware, the area of freehold land owned by the company is 25,325 acres, and leasehold 6018 acres, in all 31,343 acres in extent, all the properties being more or less gold-bearing. At the present time 10,558 acres have been proclaimed as a public gold field, and as a result of fresh discoveries the remainder will, in course of time, be similarly dealt with. The company stands possessed of six mynpatches, aggregating 1475 acres, on the proclaimed farms, besides 901 claims and a considerable interest in certain 246 Vergunning claims, both mynpatches and claims being on the line or adjacent to the line of reefs. From a careful examination of the ground it is found that, without taking into account four farms to the south, the Randfontein reef can be traced for a distance of 9½ miles upon which 16 companies can easily be located. The reef on these properties dips at an angle of between 75° and assays at anything from 1 ounce to 50 ounces per ton. The reefs on the remaining farms will shortly be tested, and their value ascertained. So far I have said enough to enable you to form an opinion of the magnitude of your possessions. Now I wish to say a few words as to their value. At the last annual meeting it was announced that a vigorous policy of exploitation would be pursued, and the directors have faithfully carried that out. It was determined to trace the Randfontein reef northwards through Uitvalfontein and Waterval, and a series of bore-holes was put down at a cost of £5500, and in every instance the reef was struck, giving extraordinary assay results. Following this up, a system of open prospecting was carried on, with the result that the reef was traced through the North Randfontein Company's property and exposed at intervals beyond its southern boundary for a distance of over 6000 feet, and it was thereupon resolved to form subsidiary companies. Since the date of the report, the directors, in spite of adverse influences having been brought to bear against their accomplishment, have formed two companies, one of the Mynpatch No. 164 on Randfontein, upon which the gold mining operations of this company were carried on, and certain claims and rights adjoining, together with the battery, cyanide works, workshops, machinery, and plant, buildings, and general mining appurtenances, with a capital of £500,000, under the name of the Porger Randfontein Gold Mining Company (Limited), of which this company has been allotted 350,000 shares in exchange for its rights. This leaves the parent company free from liabilities and with about £12,000 cash in hand. The other company, the Robinson Randfontein Gold Mining Company, is formed of the company's block of 163 claims and certain other claims on Uitvalfontein, with a capital of £600,000, of which this company has been allotted 375,000 shares. In both instances handsome working capitals have been provided and eagerly subscribed at par, besides ample reserve shares to meet future contingencies. Out of the North Randfontein flotation this company received £8500 for a block of six claims and its Vergunning rights. Altogether the company has disposed of one mynpatch, on lease, and about 260 claims for 733,500 shares, which, according to the latest advice, have a market value of £1,500,000. Within the last week the reef has been struck on mynpatch No. 206, which, together with a block of 90 claims belonging to the company, I am happy to inform you is now in course of flotation, with a capital of £500,000, in which this company will hold 350,000 shares. The position, therefore, is that we hold nearly 1,100,000 shares at face value, which, judging from the success of the two companies already referred to, I can safely estimate at a value equal to considerably more than the nominal capital of this company, and I am confident that a much larger sum will be realised in course of time, as the reefs are acknowledged to be of great value. In this manner several other companies will be formed along the line of reef northward before many months are over, and when that is accomplished the

reef will be picked up southwards of mynpatch No. 164; and, as the reefs are exposed, subsidiary companies will be formed on the remaining six mynpatches and 550 claims. Fortunately, the reef is so well known as the richest yet discovered on these fields that there is no lack of capital offering to provide the working capital of these companies. The shares in the subsidiary companies now held by us, as well as those in future companies, will remain with the parent company, and will be dealt with by the directors to the best advantage in the interests of shareholders. If we are successful in tracing our reef through the entire length of the remaining farms, which we have every hope of doing, the increase in the number of companies beyond the 16 already referred to, which can be formed, will be obvious to you without further mention. Besides the assets of the company already enumerated by me, all the running waters and other principal water sites are in our possession, and their great value for mineral and agricultural purposes can be easily appreciated. I have specially referred to the Randfontein reef; but it must not be overlooked that no less than 10 series of reefs besides our own traverse the company's properties, among which may be mentioned the Government, the Botha's, the Battery, and the Black reefs, all of which are well known as of considerable value. In course of time these will be exploited and turned to account for the benefit of the shareholders. The plantations on the company's properties number about 320,000 trees of various sizes; a large portion is already fit for timber, and is being used now for mining purposes. It is impossible to go into greater detail and enumerate various advantages possessed by the company, but the outline I have given you will be a sufficient indication to you to bring home to your minds the immense present and potential value of this gigantic estate, which promises are long to develop into a corporation whose possibilities are of a nature scarcely to be over-estimated. I cannot say anything else but to declare my honest conviction that the company has a most brilliant future before it. I now move the adoption of the report and accounts.

Mr. R. MAYER seconded, and the report and accounts were adopted.

The CHAIRMAN stated that Mr. J. B. Robinson retired by rotation, but was eligible, and offered himself for re-election.

There being no other nominee, the CHAIRMAN proposed, and Mr. FERGUSON seconded, that Mr. J. B. Robinson be re-elected a director of this company.

Carried unanimously.

The auditors (Messrs. Fraser and Abel) were reappointed, and their remuneration fixed at 25 guineas each.

LANGLAAGTE ESTATE AND GOLD MINING COMPANY, LIMITED.

Meeting in South Africa.—Magnificent Prospects.

The seventh annual general meeting of the Langlaagte Estate and Gold Mining Company (Limited) was held on May 24, 1895, under the presidency of Mr. J. W. S. LANGERMAN, in the board-room, Robinson's-buildings, Johannesburg. The shareholders in attendance and by proxy represented 103,244 shares.

The CHAIRMAN in moving the adoption of the report and statements said: The statements now submitted to you, and the report of the manager, give you such a clear idea, and deal so fully in detail with the year's operations, that they appear to me all-sufficient to enable you to arrive at a just estimate of the value of your property and of its administration by your directors. It is therefore, unnecessary to enlarge further upon the figures and results now placed before you, except to bring out more prominently those features interesting from a shareholder's point of view. You will doubtless remark the extraordinary progress made by the company during the year. The profits for that period amount to £269,373 2s. 6d., inclusive of those derived from the production of gold, £219,373 2s. 6d., as against £151,904 12s. for the previous year. This large increase is partly due to the increased stamping power employed; but the tabulated statements before you show that the average number of stamps employed in 1893 was 129.16, earning £1176 0s. 3d. per stamp, as against 160 stamps employed in 1894, earning £1372 3s. 3d. per stamp; and, further, that in 1893 the yield from all sources, calculated upon the tonnage crushed, was 9.365 dwts. per ton, and in 1894 10.330 dwts. per ton, thus proving that in this mine the ore improves in value. These figures are the more significant from the fact that during 1893 and a few months of 1894 the results from accumulated tailings were included in the general production, while from that time forward the production is solely from the ore passing through the mill day by day. The policy pursued by the board during the past of crushing a larger percentage of Main reef to that of South reef is strictly maintained, and the whole of that vast body continues to be worked. The cost for the year of milling and mining comes to 12s. 11d. per ton, against 11s. 8d. per ton in 1893; the increase occurs only under the head of mining, which, owing to the scarcity of native labour, necessitated the employment of a larger number of rock-drills in stoping. The footage for 1893 and 1894 are respectively 9563 and 16,233, giving an increase of 68 per cent. The ore in sight at December 31, 1894, is reported to be 395,600 tons, against 210,568 tons for the corresponding period of the previous year, placing the mine comfortably 20 months ahead of the mill. The cost of the treatment of tailings for the year is 4s. 4d., including royalty, against 4s. 9d. per ton in 1893, and for treating the concentrates the cost, including royalty, is £1 3s. 7d., against £1 4s. 6d. for 1893, showing that economical working and the reduction of expenses continue to be the aim of the board. During the preceding year 30 per cent. in dividends was paid, while during the period under review the directors were in a position to divide among shareholders 45 per cent., representing a sum of £211,500, solely out of the profits arising from the gold production, bringing the total dividends paid to date to 249 per cent., or £1,114,380. The balance of profit and loss, after providing for dividends declared during the year and writing off £45,683 0s. 5d. for redemption and depreciation, still stands at £129,659 16s. 11d. As indicated in the directors' report, the company leased certain claims on Lot A mynpatch to the Langlaagte Star Gold Mining Company (Limited), from which is derived a nominal rental of 50,000 shares in that company, which have been credited to profit and loss account at face value. These shares are now doubled in value. The directors are watching for a favourable moment to dispose of the township, which year by year enhances in value as the vacant spaces in and around Johannesburg are gradually being absorbed. Several applications have been received from parties who, for a consideration, are willing to open up other valuable and well-known reefs on the company's property; but the directors have declined them all, feeling that in course of time the company will exploit the ground on its own account, and so have the full benefit of any new discoveries, which, it is needless to point out, will have the effect of placing the shares of the company at a figure compared to which the present price is insignificant. I think what I have already said will be sufficient to prove to you that your property is one of the most valuable on these fields; but there is yet another matter which the directors think, in justice to shareholders at a distance, I should deal with at this meeting. You are doubtless aware that in the course of last year most malicious reports were systematically circulated against the company, having special reference to the life of the mine, instigated, it is thought, by people who, having once parted with their holdings, were endeavouring to reinstate themselves at a cheap rate, when the great value of their property came to be established, and for other reasons equally objectionable. In their endeavour to attain their object the enemies of the company have not scrupled to use a section of the Press as a vehicle to disseminate these malignant falsehoods, and certain irresponsible writers—correspondents of news papers in Europe and elsewhere—duly inspired, published the most

malicious statements as to the future of this company. Even pamphlets have been issued, in which the attempt is made by elaborate but meaningless calculations, arbitrary in their nature, as to the width of the reefs, to arrive at an estimate of the life of the mine. These unscrupulous men, without the slightest knowledge of the company's affairs, have taken it upon themselves to publish statements of the value of the company's property, based on erroneous data invented by themselves in order to suit their own purposes. Feeling sure that the position of the company is unassailable, and that the great value of the property was appreciated and admitted by men who know, and whose opinion is worth having—men who stand foremost in the mining world—the directors have hitherto taken no notice of these false reports; but, having been advised that certain misinformed shareholders had been influenced by them, the directors, with the view of exposing the machinations of those persons who may have influenced certain of the shareholders to dispose of their shares, and to reassure those who may not have the means at hand of readily ascertaining the true position of affairs, have caused a detailed survey of the company's property to be made, and the result established beyond doubt the value of the company's holding. According to the reefs, as at present exposed, the surveyor reports the unworked ground of the company within its mynypacht area to be 6,000,000 tons of ore, and it is calculated that the ore will yield 12 dwts. per ton, having a total value of over £12,500,000 sterling, and, estimating an annual consumption of ore at 240,000 tons per annum, it is found that the mine has a life of 25 years. The directors are confident that the figures are underestimated, as comparing the lowest level recently opened with the upper ones, it is found that the reefs have a tendency to increase in width and value as greater depth is reached. It must be particularly observed that the main and south reefs together average a thickness of about 16 feet, the whole of which is being milled at considerable profit. The fact that this company alone, on these fields, occupies that unique position, accounts in a great measure for the false statements which have been circulated regarding the life of the mine. For the period since the company has been in active working until now (1889-94) there has been spent upon buildings, permanent works, machinery, and plant:—

Out of profits	£510,000
Less original working capital	£30,000
Proceeds of sale, 23,000 reserve shares and new issue shares	183,875
	213,875
And returned to shareholders by way of cash dividends 149 per cent.	£682,380
Share bonus (face value), 100 per cent.	432,000
	1,114,380
	£1,410,505

or three times the capital of the company. To give you a rough idea of what the directors estimate the value of your property to be, I may say that the present capital of the company is £470,000, represented by the following assets:—
6,000,000 tons of ore in the mine, yielding 12 dwts. actual extraction ... £12,600,000
Less cost of extraction 6½ dwts. ... 6,750,060
£5,850,000

Buildings, permanent works, machinery and plant, furniture, stationery, stores, fuel, &c. (original cost, £510,000)	245,000
Cash, shares, and sundries (after deducting all current liabilities and providing for December 31 dividend)	120,000
Township adjoining Johannesburg, comprising 2700 stands at a low estimate of £20 each	54,000
Various water rights, homestead, plantation, and other interests	50,000
The freehold of unoccupied portion of the estate (say) 2500 acres at £10 per acre	25,000
Stand licenses for 25 years of township adjoining Johannesburg, 2700 stands at 10s. per month	405,000
Claim licenses and lease rents for 25 years of the estate at £4800 per annum	120,000
Which give a grand total of	£6,869,009

without taking into account the potential value of either reefs known to exist on your property, the value of which will ere long be tested, and, I hope, favourably. Shareholders will now be able to judge for themselves of the value of a property, whose past history affords ample proof of the sound and economical manner in which the affairs of the company have been conducted. I trust these remarks will serve to dispel any doubt which may have been entertained by reason of the false reports circulated to your detriment.
Mr. SHERIFF seconded, and the reports and statements were unanimously adopted.
The CHAIRMAN stated that Mr. J. B. Robinson was the retiring director; he offered himself for re-election, and as there was no other nomination he was declared duly elected.
The auditors (Messrs. J. H. Abel and D. Fraser) were reappointed on the motion of the CHAIRMAN, seconded by Mr. LILIENTHAL, and the remuneration fixed at 50 guineas each.
There being no further business, the meeting was closed.

BLOCK B LANGLAAGTE ESTATE.

Richer rock in the greater depths.

The sixth annual general meeting of shareholders in the Block B Langlaagte Estate Gold Mining Company (Limited) was held on May 24 at the company's offices, 37, Robinson's buildings, Johannesburg.—Mr. J. W. S. LANGERMAN presiding.
The CHAIRMAN, in moving the adoption of the reports and accounts, said: I lay before you the account and statements for the past year, from which you will see that, instead of working at a loss, as under previous managements, a steady profit has been made during that period, confirming my forecast of last year that the company had passed out of the loss stage. It is true that the amount is not sufficiently large to warrant the payment of a dividend, yet it must be reassuring to shareholders that the turning-point in the affairs of the company has come, and that the future may be hopefully looked forward to. As I told you at the last annual meeting, the operations were then principally confined to the eastern portion of the mine, which has proved disappointing, and that directors would concentrate their energies in opening up the western portion joining on the Cressus Company, which had up to then proved to be the richer, with the view of accelerating the favourable results which the directors were confident could be obtained from the mine. Since then this policy had been somewhat modified, the directors deeming it best, having regard to the future, to sink the main shafts both east and west to the lower levels in order to ascertain the value of the reefs at a lower depth, and to shape the future policy in accordance with the results obtained. I am glad to be able to announce that our anticipations of the existence of richer rock at a lower depth have been realised since the close of our financial year. Owing to the prosecution of this important work and the inadequacy of the rock-drilling plant, the full stamping capacity of the battery has not been employed, the average number of stamps in use being 58-75. In view of the favourable results obtained from the developments, the directors have contracted for the erection of the most improved Rand Drill Company's compressor, driven by compound engines, with surface condenser, designed for running 20 No. 13 slugger drills of 100 lbs. pressure. This plant, the manager reports, will commence work on July 1, and very soon after

the full battery of 80 stamps will be in operation. This will materially increase the returns and add to the profits of the company. The accounts show a profit for the year of £22,687 5s. 1d., against £5144 for 1893, and there is a cash balance of over £18,000 in hand. The working cost has been considerably reduced during the year—viz., £1 4s. 10d., as against £1 7s. 9d. for the previous year, and the directors are fully alive to the fact that a further reduction in the cost is necessary, and can be effected in the course of time. The machinery and plant have been considerably increased during the year, and brought into a proper state of efficiency; so that good values are reflected in the statements. In conclusion, I consider, from reliable information, that the company has a great future before it, if the promises held out by the favourable developments in the lower levels are fulfilled; and, judging from the results of a similar nature obtained in other companies along the line of reef, I have every reason to think that shareholders may be fully satisfied with their holdings. I may say that I have it on the authority of a mining engineer of good standing that it is safe to predict that, with further developments, a higher grade of ore can be confidently looked forward to. I now formally move the adoption of the report and accounts.

This was seconded by Mr. A. LILIENTHAL, and carried.
The CHAIRMAN stated that, in order of rotation, Mr. J. B. Robinson retired from the board, but was eligible, and offered himself for re-election, and there being no other nomination, Mr. J. B. Robinson was declared duly re-elected.
The auditors (Messrs. Fraser and Abel) were reappointed, and their remuneration fixed at 30 guineas each.

WESTRALIAN PREMIER GOLD MINES, LIMITED.

The statutory meeting.—A good manager appointed.

The first statutory general meeting of the shareholders in the Westralian Premier Gold Mines was held on Thursday at the Cannon-street Hotel, the chair being occupied by Mr. NICOL BROWN.
The SECRETARY (Mr. W. Neil) read the notice convening the meeting.

The CHAIRMAN, who was cordially received, said: Gentlemen—The company was registered on February 20, 1895. The prospectus was issued, and the list of the applications for shares opened on the 25th, closed on the 26th, and the letters of allotment sent out on February 27. The capital is £125,000, in 125,000 shares of £1 each; 90,000 fully-paid shares were allotted to the vendors in full payment of the purchase money, no cash being paid to the vendors, as they evinced such confidence in the property that they agreed to take payment of their mine wholly in shares. Of the remaining 35,000 shares, 15,000 were offered to the public and 20,000 are held in reserve. The shares offered to the public were applied for, and on the amount allotted 10s. per share has been called up, leaving (say) £7500 still available. This amount, £15,000 in all, must be looked upon as a very moderate working capital, but we are hopeful that by the careful and economical expenditure of same it may be made to suffice, and we are confident from Professor Nicholas' letters to us that he is keeping this well in view, the number of shareholders at date of allotment being 125. The purchase price of the property—namely, £90,000 in shares—has been paid, and the formal transfer of the leases into the name of the company has been registered. The amount of cash received to date is £7437 2s. 9d. The amount of calls unpaid at date is £70. The total area of the property is 48 acres, in four leases. The number of men required to be kept working on the mine to fulfil the Government conditions is 12, and their estimated wages and working expenses per month are at present about £200. The board have appointed Professor Nicholas, late of Melbourne University, to be their agent at Coolgardie, where he has just taken up his residence. He has, by their request, appointed a suitable working manager for the mine, and he has been instructed to proceed with the development of the mine as quickly as possible. Your board has fully considered the propriety of ordering machinery for the mine at once, but they prefer to wait for Professor Nicholas' views on the subject. You are no doubt aware that with the introduction of new processes the type of machinery used is altering, and the selection requires great care. We neither wish to order an old style of machinery which may soon be superseded, nor do we wish to try any new machinery which may turn out to be as good as the old style. Your board are following this subject with great diligence, and at present they have under consideration the new MacArthur-Yates process of treating ore, which has one advantage which is of great value in Western Australia—namely, that it requires very little water. Their decision, however, would depend upon the terms which might be obtained from the Australia Recovery Company. We may mention that Professor Nicholas speaks hopefully of the prospect of his being able to obtain a sufficient supply of water, so that in the event of our adopting the old system of wet crushing by stamps we do not expect to be inconvenienced by the want of water. In the meantime we await the arrival of Professor Nicholas' report, the substance of which will be communicated to you when we receive it. (Cheers.)
A brief discussion ensued, after which the meeting ended with a vote of thanks to the Chairman.

[MINING MEETINGS CONTINUED ON PAGE 747.]

COMPANY FINANCE.

Reports, Balance Sheets, Dividends, &c., of Mining and other Companies.

The Zapopan Mines.

A circular to the shareholders states:—“The board of directors are highly gratified at being able to inform the shareholders that a full report on the condition and prospects of the company's property has been received by mail from the company's general manager (Mr. J. C. Hilson), and its contents are of a very gratifying character, as it not only confirms the high estimates previously furnished to the directors of the great richness and vast resources of the company's mines, but supplements same with reports of later valuable discoveries of highly payable quartz which have come to light in the developments of the last few months. Mr. Hilson reports the engagement as working mine manager of Mr. Adam Johns, who is very favourably known in Australia as a skilful miner, an expert mining engineer, and a most reliable officer of proved integrity. Mr. Johns' opinion of the high measure of which awaits the company's operations is stated in emphatic terms, and further corroboration will be forthcoming in a few weeks in the official reports quite recently made on the Zapopan Company's mines to the Government of the Colony by Mr. Brown (Government Geologist) and Mr. Nash (Chief Warden of the Gold field).—Mr. Hilson reports as follows, under date May 4:—“To the Chairman and board of directors of the Zapopan Mines (Limited), London.—I beg to report having arrived on April 26 at the company's property, Brock's Creek. . . . With the advice of Mr. Adam Johns, who accompanied me, I decided to cable recommending the immediate erection of the plant, as suggested by Mr. Woodyatt in his report on the mine. . . . The result of Mr. Johns' inspection of the property, from what could be seen, is that Mr. Woodyatt has not exaggerated the large bodies of stone available. In fact, a very strong reef, averaging 4 feet in thickness, was discovered in November last on the eastern side of the large body of stone on lease No. 313. This was worked until the wet season. The stone raised was 100 tons, producing 146 ounces gold, value

£3 14s. per ounce. Before the work on this new reef was suspended a shaft had been sunk 50 feet, and a strong pyrites lode had been encountered. This discovery greatly enhances the value of your property, from the fact that no portion of the reef was visible on the surface, and it was accidentally dropped upon. . . . Mr. Johns is of opinion that, from surface appearances, there will be more stone raised at the southern end of the property than the proposed new battery of 20 stampers will crush, and at the northern end an equal quantity will likely also be raised. . . . The whole of the work done on the property since Mr. Woodyatt visited it has been confined to the opening of new ground at both ends, neither of the shafts having been further sunk, for the simple reason that the pumps were too old and worn, and, with the probability of selling, the proprietors were disinclined to renew any of the plant. . . . I beg to report having inspected the leases (five) and the transfers, all of which are in order. . . . The Chief Warden visited the mine, and informed me he made a special report to his Government in November last respecting your property. This will not likely be published for some months. . . .—Yours faithfully, J. C. Hilson.”
Independently of the foregoing report, Mr. Hilson has written from the mine at much length, and the following extract, from his letter are of interest to the shareholders. After referring to the plentiful rainfall, and the consequent temporary interruption to mining operations, Mr. Hilson writes:—“You will be pleased to learn that the property is looking better than when Mr. Woodyatt last visited it. Considerably more stone has been laid open, and, what is better, it is richer—that is to say, the average of free gold is much higher than previously, and of better value. With the new reef discovered at the southern end of the eastern side of the big blocks of stone, there will be fully 30 feet wide of good stone to take out. The proposed 20-head mill will never crush such a body of stone, and Johns, who is by no means an optimist, seems pretty well convinced the company will have to erect 20 stampers additional. The late proprietors tell me the Government Geologist made a thorough examination of the property, and, from what they could gather, he was much impressed. His report will not be available for some time yet.” Mr. Hilson also advises that he has received many offers from local tributaries to work portions of the company's property on tribute, and as they have offered the unusually high tribute of 50 per cent., where a 10 per cent. has usually been regarded as the maximum, he regards that as a good indication of what the property is like. Since the foregoing was written (May 4) the directors have authorised, by cable, the immediate erection of new battery and new pumps, and as all the local conditions are favourable to early completion of the work, a resumption of good crushings may be expected in a few weeks. The official reports of the Chief Warden and the Government geologist will be published as soon as received, for the further information of the shareholders.—By order of the board, W. M. Pigram, secretary.”

The De Lamar Mining Company.

The following are extracts from the report of the directors to be presented at the annual meeting next Friday:—The revenue account for the period shows a credit balance of £99,900 18s. 10d. From this amount three quarterly dividends of 1s. per share each have been paid, and since the closing of the accounts a further dividend of 1s. and bonus of 6d. per share, making a total distribution of £90,000, or 4s. 6d. per share, being at the rate of 22½ per cent. per annum upon the capital of the company. All ordinary expenses have been charged to revenue. The board have also set aside out of the revenue the sum of £3000, for machinery renewals, &c., and have written back to capital account £5078, being the balance of the cost of adjoining claims acquired in 1892-93. They have further transferred the sum of £1394 17s. 7d. to the credit of bullion and ore adjustment account, which now amounts to £7992 16s. 9d., and the balance carried forward is £755 5s. 8d. The only expenditure on capital account has been £1951 0s. 8d. for the completion of the Louise Creek water supply, and for the small Pelton wheel attached thereto. The amount of unexpended capital now stands at £41,299 7s. 7d., which, as in former years, is largely employed in carrying the stock of fuel, timber, stores, &c., amounting as per inventory at 31st March to £36,273 17s. 5d. The total product of the mine was thus £194,491 10s. 5d., obtained at a cost of £93,217 1s. 3d. The cost per ton of obtaining the above results, including development work and all expenses, was—Mining, \$5-014; milling, \$5-211; or a total of \$10-225 per ton. This compares very satisfactorily with \$11-924 last year—viz., a saving of \$1-699 per ton, accounted for by the increased tonnage treated, the saving effected through the operation of the Pelton wheel, and the modification in the scale of wages arranged in the month of May. Included in the foregoing is the cost of obtaining shipping ore—viz., \$40,539-48, or a fraction under \$1 per ton on the total production. The average price realised for silver was 62-03 cents. per ounce, as compared with 71-085 cents the previous year, and 84-45 cents in 1892-93. The price obtained for shipping ore suffered a similar depreciation. This further fall in value represents a loss of about £8000, as compared with the previous year, and the total depreciation in the value of the silver product of the mine during four years' working, as compared with the basis of \$1-00 per ounce at the time the property was acquired, amounts to no less a sum than £108,000, or 27 per cent. on the capital of the company. The ores treated have yielded more gold and less silver, as compared with the previous year—viz., 29,671 ounces of gold, against 26,483 ounces, and 368,048 ounces of silver, against 509,169 ounces. In value the result was 72-82 per cent. and 27-18 silver. This is apart from the value of the shipping ore, which is chiefly silver. The mill has worked most satisfactorily during the year, the tonnage treated being nearly 5000 tons in excess of the previous year. Captain Plummer, in his report, goes fully into the question of reserves, which he places at 65,000 tons of first-class ore. The second-class ore he places at 112,000 tons, of which 10,000 tons may run to \$18 to \$20. The adoption of a process for treating profitably the lower grade ores, and also the first-class ores more economically, has received the constant and anxious attention of the board and managements, and experiments have been continuously made throughout the year; so far, however, without results sufficiently decisive to warrant the erection of fresh plant. Up to the present time the process which appears most promising is the Pelatan-Clerici, further tests of which are about to take place in Denver in presence of Captain Plummer upon our own ores. It will be a matter of great satisfaction to the board if this test fulfil the hope raised by earlier experiments, and the expectations of the patentees, and warrant the adoption of the process on a large scale. The Pelton wheel during its first season's work amply fulfilled expectations, and whenever there was sufficient volume of water easily drove the whole plant. The saving in fuel alone amounted to over \$6,000, at which rate another season's work will suffice to recoup the entire cost of the installation. The introduction of the Louise Creek water supply was successfully completed during the year, the entire cost amounting to £3,535 18s. 9d., which is well within the original estimate. Owing to the foul condition of the Jordan Creek water, it has proved of great additional value for boiler purposes, a use not contemplated when the work was decided upon.

Johannesburg Estate.

In their report for the year to March 31, the directors state that they "are glad to report that the profit for the last 12 months shows an increase of £2977 16s. 6d., as compared with last year's statement. The gross profits amount to £11,185 10s. 2d., less written off for depreciation £181 4s. 6d., leaving a net balance of £11,004 5s. 8d., which together with the balance brought forward from last statement, £3,388 13s. 6d., brings the total to £14,392 19s. 2d., disposed of as follows:—Dividend No. 8, paid August 16, 1894, £5000; dividend No. 9 paid February 15, 1895, £5000 (total £10,000), thus leaving an available balance to be carried forward of £4392 19s. 2d. The five years' agreement with the members of the Exchange expired on June 30, 1894, and after protracted negotiations, a further agreement was entered into for a period of three years, which provides for the payment of entrance fees, subscriptions, and the allowance to the committee on the same terms as before; and, further, that after a net profit of £2500 per annum has been made by the Estate Company, derived from the Exchange, any surplus over and above that amount to be equally divided between this company and the members. Any surplus so derived cannot be used by the members for the erection or purchase of any premises for Exchange purposes. Since the last report your directors are pleased to inform you that 37 New Doornfontein Estate stands have been sold, and that a profit of £1567 7s. 5d. has been transferred to profit and loss account. The purchase amount of the freehold has now been paid in full—viz., £9880. This, as explained to you in the last statement, represents the freehold of 831 stands. The directors propose to offer to stand-holders an extension of their present leases to 99 years."

The Golden Spur Gold Mines (Limited) of Tasmania.

The following circular has been issued to the shareholders:—"I have the pleasure of informing you that the directors have just concluded the purchase of the 10 acre lease, known as the North Golden Gate, which connects the Golden Spur with the northern boundary of the New Golden Gate Mine, an event which was foreshadowed at the statutory meeting of March 18. By this acquisition the prospects of the Golden Spur are very considerably enhanced, not only as regards the increase of area, which now stands at 53 acres, but the early prospect of developing the Loanes' reef, which is one of the largest reefs in the adjoining mine. Upon the 10 acre section is a shaft 392 feet, also a series of drives, which has proved Loanes' reef of the New Golden Gate to be in this section. From a report dated December 18, 1894, of Mr. Montgomery, M.A., Government Geologist of Tasmania, he states 'that Loanes' reef goes north-westerly into the North Golden Gate Mine (which is now the property of your company) and was driven on for some distance at the 392 feet level.' In a former report Mr. Montgomery stated, in referring to a winze from this level, that 'Gold was in the stone from 36 to 45 feet; that is throughout a width of 9 feet. Promising as this discovery is, the efforts of the board will be chiefly directed to sinking the shaft to a depth of 600 feet, where their neighbour, the New Golden Gate, has been working with most favourable results upon a reef 31 feet wide. With the permission of that company, your directors are about to continue a drive along this remarkable reef, and to follow it in the direction of your newly-acquired 10 acre lease, the boundary of which is distant about 150 feet. This work will be accomplished at an early date, and if results are satisfactory, the Golden Spur property will have, in the opinion of experts, proved itself to be equal in every respect to the New Golden Gate, quite apart from the many indications of gold-bearing reef over this large undeveloped area. The New Golden Gate Company has, during the last five years, upon a called-up capital of less than £10,000, produced to December last 54,728 ounces of gold to the value of £197,350 from 58,797 tons of ore, showing an average yield of nearly 1 ounce to the ton, and is now paying upwards of £25,000 per annum in dividends, with every prospect of a large increase in the near future, as additional concentration plant is now being erected. When the new winding plant over your shaft about to be erected is ready, the shaft will be sunk with all speed to a further depth of about 200 feet to meet the drive above referred to along the lode north of the 600 feet level in the New Golden Gate Mine. A further interesting circumstance to the shareholders is the news received by cable on the 7th inst.—viz., that the New Golden Gate had 'struck a large payable reef at the 800 feet level dipping fast into the Spur property,' and the 'prospects are encouraging.'"

Ebbw Vale Steel, Iron, and Coal.

The report of the Ebbw Vale Steel, Iron, and Coal Company (Limited) for the year ending March 31 states that the amount brought forward was £31,376, and the gross profit for the period under review, £45,665, making together £77,041. From this has to be deducted £7762, expenses of head office and legal costs; £19,381, interest on debentures and fully paid-up shares; and £22,028, written off for depreciation of property, leaving a balance of £27,420. The iron and steel trades, which have been greatly depressed for some time, during the past year reached a state of almost complete stagnation, and, owing to the keen competition for the limited number of orders on the market, prices were brought to a point absolutely unremunerative; moreover, since the date of the last report there has been a falling-off in the price of South Wales steam coal, and the outlook at present offers no indication of early improvement. Under these circumstances, the board regret they do not feel justified in recommending the payment of a dividend. The directors are pleased to report that the old debenture trust is practically closed, all the "A" and "B" bonds having been cancelled, either by payment or by exchange for bonds of the new issue, except £3000, which amount has been paid-off since the expiration of the financial year, so that the issue of 1892 now becomes a first charge upon the property. The plant and machinery throughout the concern have been maintained in thoroughly efficient working condition out of revenue.

Blue Spur and Gabriels Gully Consolidated Gold Mine.

The report of the Blue Spur and Gabriels Gully Consolidated Gold Company (Limited), for the 12 months ending February 28, states that the accounts arranged according to the agreement with the banks show the income amounted to £14,953, and the working expenses to £6849, leaving a gross profit of £8104. From this has been paid: Interest on mortgage £851, preference dividend due on February 28, 1894, £898, and sinking fund to bank for the past year £2000. The directors have also a right to deduct for fees £1250. This leaves £3105, from which has to be deducted £717, the dividend to be declared on the preference shares for the past 12 months. There thus remains £2388. The amount realised by sale of plant, £200, less charges, has also been paid to the banks in reduction of the mortgage. The banks were entitled under the terms of the mortgage to one-half the balance of £2388, which has been more than satisfied by the payment of a second £2000, making the total payments in reduction of the mortgage during the year of £4200. The directors forego their claim to fees as they also now entirely forego the claim for the previous year—at that time only waived pending the assent of an absent colleague. He has given his assent on condition that the amount of fees thus renounced should be

applied to the reduction of the debt to the banks. The directors in London are of the same mind, and as the funds of the company permit it, the board, therefore, have directed that a further £2000 be repaid, which will further reduce the debt to £5800, a sum which may well be paid off in the current year if the yield of gold goes on as satisfactorily as it has done in the last 12 months. The company will then begin the financial year 1896-7 free of debt, and the probable surplus of net profits will be available for dividend on the ordinary shares. The working of the mine during the period under review was carried on without any accident or drawback, a pleasing feature being an increasing yield of gold, both as regards time and quality of cement. The yield averaged for the first six months 300 ounces per month, and during the second six 331 ounces per month. In 1893-4 the average value of the cement worked was 1s. 0½d. per cubic yard. In 1894-5 it was 1s. 3½d. per cubic yard, or an improvement of 2½ per cent. Another very satisfactory feature was that whereas in 1893-4 it cost £4642 in wages and explosives to work 181,841 cubic yards of cement, from which 2168 ounces of gold were obtained, it only cost £4799 in 1894-5 to work 221,503 cubic yards, from which 3789 ounces of gold were won—that is to say, the cost of wages and explosives in 1894-5 was only £1 5s. 3d. per ounce, as against £2 8s. 5d. in 1893-4, or 52 per cent. only of that of the previous year.

Langlaagte Estate and Gold Mining Company.

The report of the Langlaagte Estate and Gold Mining Company for the year 1894 states:—"The profit and loss account shows:—Balance at December 31, 1893, £117,469 14s. 10d.; profit for 1894, £269,373 2s. 6d.—£386,842 17s. 4d., appropriated as follows:—Mine development redemption, £16,764 16s. 5d.; depreciation, £38,918 4s.—£43,683 0s. 5d. Dividend at the rate of 45 per cent. for the year, £211,500—£257,183 0s. 5d.; leaving a balance to be carried forward of £129,659 16s. 11d. Your directors have written off 51 per cent. from mine development, 11½ per cent. from machinery and plant, works, buildings, &c., and 38½ per cent. from permanent works, bringing their book values down to merely nominal figures as compared with their intrinsic values. The balance of the reserve capital—viz., 3000 shares—was disposed of by your directors during the early part of the year at £5 each. The profit thereon has been added to share premium account, augmenting that fund to £72,000. The ore reserves have been considerably augmented during the year, which now stand at 395,600 tons, as against 210,568 tons at the end of 1893. Your directors have leased to the Langlaagte Star Gold Mining Company (Limited) the remaining portion of the mine on Lot A, consisting of about 27 claims, and received in consideration therefor, besides a nominal rental, 50,000 shares in that company in a capital of £200,000, of which £100,000 forms the working capital subscribed at par."

Randfontein Estates and Gold Mining.

The report for 1894 states:—"The accounts disclose a profit on the year's operations of £85,730 9s. 7d., after providing over £20,000 for mine development. The ore in sight shows a substantial increase over that of the previous year, while the footage sunk, risen, and driven is nearly double. To diminish the heavy cost of working for three shafts along the outcrop, your directors have decided to sink a permanent main shaft east of the outcrop to work the north section of the mine. This important work will be finished in the course of a few months. The recovery of gold from the mill and through the cyanide process has been satisfactory in every way, the machinery and works being in good order. The plantations continue in a healthy condition, and no appreciable damage through fire has occurred during the year. Some of the trees are already being utilised for mining purposes. As announced at the last meeting, your directors have caused considerable prospecting to be done on the Farms Uitvalfontein and Waterval, both by boring and sinking, with such success that applications have been received from capitalists for blocks of the company's holdings for flotation, which are now under consideration."

Block B Langlaagte Estate Gold Mining.

The report for 1894 states:—"The working operations for the year, as detailed in the accounts, show: Revenue, £120,059 3s. 7d.; working expenditure, including mine development, £97,351 18s. 6d., leaving a net balance on the operations of the year of £22,687 5s. 1d. Your directors towards the end of last year disposed of the balance of the preference shares at par—viz., 11,326. From the manager's report it will be seen that considerable progress has been made in developing the mine and in shaft sinking to the lower levels, where the reefs show a marked improvement in value. The mill has run well during the year, and the treatment of the tailings and concentrates by the cyanide process has given every satisfaction, the percentage of extraction being high."

Frontino and Bolivia Gold Mining Company.

The directors have received advices from the mines, dated April 24 and May 7. The statement for the month of April is as follows:—2320 tons produced bar gold 2579 ounces; tributaries' gold produced bar gold 136 ounces; total, 2715 ounces; also 26,240 lbs. of sulphurets, valued at £424 18s. 9d.; estimated value of the gold and sulphurets, £5893 5s. 4d.; cost at the mines, Medellin, and in London, £4808 6s. 7d.; estimated excess of returns, £1086 18s. 9d. It will be observed from Mr. Eustice's reports that the company's men were returning to the mines, and that the usual work was being resumed. Attention is called to Mr. Eustice's remarks regarding Salada and Marmajito mines in his report of April 24. Bill of lading for 73 tons of sulphurets has been received, and the boxes will arrive by the *Essequibo*, due yesterday (21st June). No advices have yet been received as to the shipment of the gold for the four months January to April, the last mail having left too early in May, but advices on the subject may be expected by the next mail.

London and South African Exploration.

The report of the London and South African Exploration Company (Limited) for the year ending December 31, states that the gross revenue amounted to £75,789, and that the sum of £55,000 has been distributed in cash to the shareholders. During 1894 various causes, which are now passing away, adversely affected the collections on the estates at Kimberley. The latest news received this year indicates renewed activity, and a substantial increase in the revenue.

The Gwelo (Matabeleland) Exploration and Development Company.

An extraordinary general meeting of the above company will be held at the Cannon-street Hotel on Thursday, June 27, at two o'clock in the afternoon, to consider, and, if approved, adopt certain options acquired by Charles J. Fauvel, Esq. (the Chairman), for the acquisition of a concession of territory in South Africa, bordering on the Transvaal, in extent upwards of 20,000 square miles, and having a population of about 2,000,000 of people, over which territory the concessionaires control the rights to all minerals, the collection of taxes, a free port, the building of a port township, and other valuable rights, comprising railways, telegraphs, and public works, and to empower the Chairman to carry same into effect.

Durban-Rodepoort Gold Mining Company.

The following resolutions have been passed by the directors:—"That an interim dividend of 8s. per share (15 per cent.), free of income-tax be, and is hereby declared payable at the Bank of Africa (Limited), 113, Cannon-street, E.C., on Friday, July 12, to the shareholders registered in the books of the company on Thursday, July 4, and to holders of share warrants to bearer." "That the transfer-books of the company shall be closed from Thursday, July 4, to Wednesday, July 10, both days inclusive."—Note: Holders of share warrants to bearer will receive payment of the dividend upon presenting coupon No. 19 at the Bank of Africa (Limited), London, and Johannesburg, and at the offices of the Compagnie Française de Mines d'Or et d'Exploration, 20, Rue Taitbout, Paris.

The Diamontfontein Estates.

A circular has been issued to the shareholders as follows:—"I am instructed by my board to inform you that the arrangement made with the board of the South African General Development Syndicate (Limited) entitles shareholders of the latter company to apply for shares of the Diamontfontein Estates (Limited), until the 24th instant. Applications must be made by this date if you are desirous of availing yourself of your rights. The board will deal as it may think best with the shares at present reserved for you, should your application not come to hand by the 25th instant."

The secretary informs us that the transfer of the BOOYSEN property to the Gold Fields Deep Company has been registered.

ABBRIDGED PROSPECTUS.

CONVERSION AND REDEMPTION OF THE 5 PER CENT. FIRST, SECOND, AND THIRD MORTGAGE BONDS OF THE

RIO TINTO COMPANY, Limited,

Issue of £3,600,000 Four per Cent. First Mortgage Bonds.

All outstanding 5 per Cent. First, Second, and Third Mortgage Bonds of the Company not presented for conversion, will be paid off at par with accrued interest on the 19th July, 1895, and will cease to bear interest from that date. The Trustees for the 4 per Cent. First Mortgage Bondholders will be:—

ALFRED CHARLES DE ROTHSCHILD, Esq.,

and

HUGH MACKAY MATHESON, Esq.

These Bonds will be secured by a Deed of Mortgage and Trust, in English form, whereby, when the existing Bonds have been converted or redeemed, the whole of the immovable property of the Company in Spain, including the Rio Tinto Mines, the railway therefrom to Huelva, and the Pier at that Port, will be conveyed to the Trustees as security for the Bonds in priority to all other charges. The mortgage will contain a covenant on the part of the Company to register or inscribe the Deed in Spain, whenever called upon by the Trustees for the Bondholders to do so.

Pending the completion of this Deed, and the preparation of the new Bonds, Scrip Certificates of the Rio Tinto Company (Limited) will be issued, which will be exchanged for the Definitive Bonds as soon as they are ready for delivery.

The extension and development of the Rio Tinto Mine has for years been kept well in advance of current requirements, and by this means the Company has many millions of tons of ore laid open, which will provide an uninterrupted supply for a period far beyond the duration of these Bonds, and this exploration work is being steadily continued.

At the present time there are Contracts running for the supply of more than half a million tons of pyrites per annum, which are sold for both their copper and sulphur contents, besides which, the Company's production of refined copper is about 20,000 tons a year, which commands a ready sale.

The new 4 per Cent. Bonds will be to Bearer, or Registered, at the option of Subscribers, in sums of £20, £100, £250, and £500, with Coupons, payable quarterly on the 1st of January, the 1st of April, the 1st of July, and the 1st of October, in London, at the Offices of the Company, in pounds sterling; in Paris, at the Offices of the Société Générale, at the exchange of 25 francs; and in Bremen, at the Offices of Messrs. J. Schulze and Wolde, at the exchange of M. 10.35; the first Coupon will be payable on the 1st of October, 1895. Holders can at any time, upon application to the Company and payment of the cost, have their Bonds to Bearer exchanged for Registered Bonds, or their Registered Bonds exchanged for Bonds to Bearer.

The Bonds will be redeemed by half-yearly Drawings, which will take place in June and December, and Draw Bonds will be paid off on the 1st of January and the 1st of July succeeding the drawing. The first drawing will take place in June, 1895, and the Ordinary Sinking Fund will redeem the whole of the Bonds not later than the 1st of January, 1925, but the Company reserves the right to increase the Sinking Fund, or to pay off the whole or any portion of the Bonds outstanding, at any time after the 31st of June, 1905, on giving 28 days' notice by advertisement.

Drawn Bonds will be paid off at the same places as those fixed for the payment of Coupons.

Messrs. N. M. ROTHSCHILD and SONS instructed by Messrs. MATHESON and CO., the Commercial Agents of THE RIO TINTO COMPANY (LIMITED), are authorised to receive subscriptions for the above issue.

Subscriptions will be received by them at their offices, New Court, St. Swithin's Lane, London, in existing Five per Cent. First, Second, or Third Mortgage Bonds which have not been previously drawn.

Applications for the new 4 per Cent. Bonds, in exchange for 5 per Cent. Bonds, which have not been previously drawn, will be received any day (except Saturday) until THURSDAY, the 27th of JUNE, 1895, INCLUSIVE, on the following conditions:—

Subscribers in Bonds will receive allotment in full.

For every £100 of the 5 per Cent. Bonds subscribers will be entitled to receive 4 per Cent. Scrip of equal nominal value, and a Cash Bonus of £2 payable on the 5th of July next. The Coupon due the 1st of July next must be detached from the Bonds, and will be paid in the usual way.

For fractional parts of £100 proportionate allotments and cash payments will be made.

Application must be made in the form annexed to the Prospectus, and accompanied by a deposit of Five per Cent. in Money, or an approximate amount in convertible Bonds, unless subscribers prefer to deposit all their Bonds when making application. The whole of the Bonds, with all Coupons subsequent to the 1st of July, 1895, must be delivered as soon as the Scrip Certificates are ready to be given in exchange, and failure to deliver them in due course will render the deposit on application liable to forfeiture.

Bonds presented for conversion must be listed on forms which can be obtained from Messrs. N. M. Rothschild and Sons.

Bonds will also be received for conversion in Paris and Bremen.

The draft of the Mortgage Deed relating to the new 4 per Cent. Bonds can be inspected at the Offices of the Solicitors of the Company, Messrs. Freshfield and Williams, 5, Bank Buildings, E.C.; or at the Offices of the Solicitors to the Trustees, Messrs. Dawes and Sons, 9, Angel Court, E.C.

By order of the Board,
GEO. N. THOMSON,
Secretary.

Offices of the Company,
10, St. Swithin's Lane,
London, E.C., 17th of June, 1895.

THE NUNDYDROOG COMPANY (LIMITED).

6 and 7, Queen Street Place, London, E.C.,
21st June, 1895.

At a meeting of the Directors, held this day,

IT WAS RESOLVED—

"That an interim Dividend (free of Income Tax) of 1s. 6d. per share be, and is, hereby declared payable on the 25th day of July, 1895, to the shareholders on the books of the Company on the 29th inst., and that the Transfer Books be closed during the said 29th inst."

By order of the Board,
I. CROCKER, Secretary.

R. S. STEVENS & COMPANY,

STOCK AND SHARE DEALERS,

35, NEW BROAD STREET,
LONDON, E.C.

Telegraphic Address—"Giftedness, London."

SPECIAL BUSINESS IN ALL MINING, MISCELLANEOUS,
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THE COMING RHODESIAN BOOM.

We have instructions to SELL by PRIVATE TREATY for CASH, the following
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VICTORIA DISTRICT, MASHONALAND.

Lot One	-	-	3000 Acres.
Lot Two	-	-	3200 „
Lot Three	-	-	3500 „
Lot Four	-	-	3000 „
Lot Five	-	-	3600 „
Lot Six	-	-	4000 „
Lot Seven	-	-	4200 „
Lot Eight	-	-	175 „ Gold Claims.
Lot Nine	-	-	400 „ „ „

BULUWAYO DISTRICT, MATABELELAND.

Lot One	-	6,000 Acres.
Lot Two	-	6,200 „
Lot Three	-	6,000 „
Lot Four	-	18,000 „
Lot Five	-	24,000 „
Lot Six		20 Town Lots, Buluwayo.
Lot Seven	-	100 Gold Claims.

TRANSVAAL.

Lot One	-	50,000 Acres.	Lot Three	-	106 Gold Claims, Klerksdorp District.
Lot Two	-	9,000 „			

The Rhodesian Properties have been Pegged out, Surveyed, and Registered, and Title Deeds lodged in a London Bank. All are Gold-Bearing and Reported upon by Mining Engineers of eminence. The Transvaal Estates were until recently the Property of a former Governor of Natal. The title and all surroundings are in form, and a large proportion of the Purchase-Money may remain outstanding on the security of the Premises.

For further particulars apply to

MESSRS. LOYD KNOX & GRIMSHAW,
41, THREADNEEDLE STREET,
LONDON, E.C.

Telegraphic Address: "TENANTRY, LONDON."

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 tion.

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 without fastenings.

SLEEPERS.—Wood and Steel for all gauges.

LOCOMOTIVES.—Six wheels coupled, by Manning, Wardle,
 and Co., 12 inches by 17 inches, now at Cardiff; also six wheels
 coupled, by Avonside Engine Company, 14 inches by 20 inches, now
 near Cardiff; also six wheels coupled, by Sharp, Stewart, and Co.,
 17 inches by 24 inches, now near Cardiff; all recently thoroughly
 overhauled, and ready for instant work; cheap for cash, or three
 years' redemption purchase.

PACIFIC MINING AGENCY AND TRUST COMPANY.

A Corporation organised under the Laws of the State of California.
 CAPITAL STOCK, £50,000.
 BOARD.

IRWIN C. STUMP (Chairman) Manager of the Estate of the late
 U.S. Senator Hearst.

IRVING M. SCOTT, Manager Union Iron Works.

JACOB H. NEFF, President California Miners' Association.

P. N. LILIENTHAL, Manager Anglo-California Bank (Limited).

W. F. GOAD, Vice-President, Wells, Fargo, and Co.

D. M. BURNS, Capitalist.

R. C. CHAMBERS, Manager Ontario Mine, Utah.

WILLIAM C. RALSTON, Secretary (Secretary California Miners
 Association).

BANKERS—The ANGLO-CALIFORNIAN BANK (Limited).

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THIS COMPANY sells Mines, Mining Claims, Ditch Properties,
 and Water Rights ON COMMISSION, and will act as Agent and
 Broker for the Sale and Purchase of such Properties.

It is intended to conduct the Purchase and Sale of Mining Claims,
 Ditch Properties, and Water Rights on the same basis as a real estate
 transaction.

The Company is prohibited by its Articles of Incorporation from
 buying or selling on its own behalf, or except upon commission, or
 as agent or factor for others.

The buyer pays no fees whatever, and there is no incentive to
 advance the price beyond the original figures at which the price and
 commission have been agreed upon with the seller.

It is not intended only to negotiate the sale of an entire property but
 interests in such may be sold or money obtained for development work.

This Company especially solicits the business of making reports
 or examinations for non-resident mine owners on any of their mines
 in the United States, and obtaining special information as to their
 condition and so forth (said reports being confidential).

Those who conduct the business of the Company have had long
 experience in mining operations, and it is their intention to place
 the Company in a position to inspire the confidence of all who seek
 its assistance in its integrity and fair dealing.

We respectfully refer to any Bank in the City of San Francisco
 and to the Anglo-Californian Bank (Limited), London, as to the
 standing of the Board of Directors of this Company.

Descriptions of properties for sale with maps, reports and all
 necessary information, are left on file in the office of the Company.
 Abstracts of such reports with prices of mines will be furnished
 upon application.

California has produced £267,000,000 in gold, and is still producing
 £2,680,000 a year. There are thousands of claims requiring capital
 for development. In other Pacific Coast States and Territories there
 are abundant opportunities for investment in mines of gold, silver,
 copper, lead, coal, and so forth. Information concerning these will
 be furnished by this Company on application.

This Company will also furnish competent engineers, superintendents,
 foremen, miners, millmen, assayers and others connected
 with the mining industry on application, furnishing their references
 and so forth.—Cable Address, "CHAPIN," San Francisco.

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 every quarter of the globe. Its policy is absolutely independent;
 its circulation is cosmopolitan; and its literary scope embraces the
 entire field indicated by its title.

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 interest in it held or exercised, by any mine owner, speculator,
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 dealing agency.

TO CORRESPONDENTS.—Letters on Editorial Matters, or containing
 literary contributions should be addressed to "THE EDITOR." All matter
 intended for insertion must be written on one side of the paper only. The
 return of rejected manuscripts cannot be guaranteed. The Editor invites
 correspondence and items of news or information from readers in all parts
 of the World.

TO SUBSCRIBERS.—The Annual Subscription to **THE MINING
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 Railway Bookstalls and Newsagents throughout the United Kingdom for 6d.
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 per page; Companies' or Legal Announcements, 9d. per line, with a Mini-
 mum charge of 7s. 6d.; Sales by Auction, Publications, For Sale, Wanted,
 &c., &c., 6d. per line with a Minimum charge of 4s.
 Displayed (Trade) Advertisements of 2 inches in depth (or more). Single
 Column measure, will be inserted at the following rates:—For 52 inser-
 tions 2s. 6d. per insertion for each inch in depth; for 13 insertions 3s. 6d. per insertion
 for each inch in depth. Terms for special positions and contracts may be
 had on application.

*** ADVERTISEMENTS** (which should in all cases be sent direct to
 THE BUSINESS MANAGER can now be received for the forthcoming issue
 of **THE MINING JOURNAL, RAILWAY AND COMMERCIAL
 GAZETTE**, on FRIDAY, at 18, FINCH LANE, E.C., up till 6 p.m., and
 at 3, DORSET BUILDINGS, SALISBURY SQUARE, E.C., until 9 p.m.

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 Telegraphic and Cablegraphic Address: "TUTWORK, LONDON."
 Codes used: "A.B.C.," "Morning's," and "Universal."

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LONDON: JUNE 22, 1895.

THE ROBINSON GROUP.

THE annual reports of the Langlaagte Estate, Randfontein,
 and Block B Companies have been received this week, and
 furnish very interesting reading. Of the three, of course,
 the Langlaagte Estate is the principal, the most flourishing,
 and most promising. This time last year rumours were afloat—
 doubtless created by interested persons, and for interested
 motives—that the life of the mine was a short one. Now, how-
 ever, the statement that appears in the report quite refutes
 this unjust and absurd rumour. During the past year the pro-
 gress made has been extraordinary. The profits have amounted
 to no less a sum than £269,373 2s. 6d., inclusive of those
 derived from the production of gold £219,373 2s. 6d., which com-
 pares favourably and encouragingly with the profit of £151,904 12s.
 for the previous year. This, of course, is due to several
 causes, the principal of which is the increase in stamping power.
 In 1893 the average number of stamps employed was 129-16,
 earning £1176 0s. 3d. In the following year they were in-
 creased to 160 stamps, earning £1372 3s. 3d. per stamp. Then,
 again, what is more gratifying is that the ore has greatly im-
 proved in value. In 1893 the yield from all sources was 9-365
 dwts. per ton, and last year it increased to 10-330 dwts., whilst
 for the first four months of the present year the average yield
 has been as high as 12-362 dwts. These figures—as the Chair-
 man emphasised—are the more significant from the fact that

during 1893 and a few months of 1894, the results from accumu-
 lated tailings were included in the general production, while
 from that time forward the production has been solely from the
 ore passing through the mill day by day. But against this
 must be set an increase in the cost of mining from 11s. 8d. in
 1893 to 12s. 11d. per ton; as, however, this has been chiefly owing
 to the scarcity of native labour, it is a matter to which little
 importance may be attached. In order to refute the rumours
 that were in circulation last year as to the life of the mine, Mr.
 LANGERMAN announced that the directors have caused a detailed
 survey of the company's property to be made, with the result
 that according to the reefs as at present exposed, there are
 found to be 6,000,000 tons of ore in the unworked ground.
 Calculating that the ore will yield 12 dwts. per ton, giving a
 value of over £12,500,000, and estimating the annual consump-
 tion at 240,000 tons of ore, the mine has a life of 25 years. This,
 of course, is reassuring enough for anyone, but the Chairman
 likewise announced that these figures were under-estimated, for
 comparing the lower level recently opened with the upper ones,
 it was found that the reefs have a tendency to increase in
 width and value as greater depth is reached. From this,
 of course, it will be seen that the prospects of
 the Langlaagte Estate are not only excellent, but
 are really magnificent, and are quite sufficient to dispense any
 feeling of depression that may exist in the minds of the share-
 holders or the public.

Coming to the Randfontein, at the present moment this com-
 pany is not in so flourishing a condition as the Langlaagte;
 nevertheless, the profit earned during the past year is a large
 and gratifying one, and the indications that point to a pro-
 sperous and successful future are immense. In addition to its
 gold production, the company derives a considerable revenue
 from the sales of properties to other companies. It owns an
 immense area of freehold land, amounting to 25,325 acres, and
 a leasehold of 6018 acres, or, together, 31,343 acres, all the
 properties of which are more or less gold bearing. Of this
 acreage 10,558 have been proclaimed as a public gold field, and
 as a result of fresh discoveries, said the Chairman, the
 remainder will, in course of time, be similarly dealt
 with. From a careful examination of the ground it is found
 that without taking into account four farms to the south, the
 Randfontein reef can be traced for a distance of 9½ miles, upon
 which 16 companies may easily be located. The profit for the
 past year was £35,730, after providing over £200,000 for mine
 development, and taking into consideration the great possibili-
 ties in the way of disposing of portions of their property, and
 also the great progress that has been made in the development
 of the mine, no one can come to any other conclusion than
 that the company has a most brilliant future before it, only
 less brilliant, perhaps, than that of the Langlaagte Estate
 itself.

As for Block B, but little can be said. It is the least success-
 ful of the group and has not yet arrived at the dividend stage.
 There is every indication, however, that the corner is turned,
 and that the future may be looked forward to with hope.
 The Chairman announced that the ore is becoming richer as
 lower depth is reached. The accounts for the past year showed
 a profit of £22,687 against £5,144 in the year previous, and
 what is equally significant and promising is that the working
 costs have also been considerably reduced. The Chairman's pre-
 diction at the conclusion of his speech that with further
 developments a higher grade of ore can be safely looked for-
 ward to, is quite sufficient to encourage shareholders to retain
 their interest in the company.

FRASER AND CHALMERS (LIMITED).

IT is a well-known fact that makers of mining machinery—
 even the first-class firms—have, during the last few years,
 had to contend against exceptional circumstances. They,
 like everybody else, have keenly suffered through the dullness in
 trade. Mining, especially, has gone through a period of depres-
 sion unexampled in the whole history of the industry. Now,
 however, we rejoice to say, that period is a thing of the past.
 The outlook is now as bright as before it was dark, and a time
 of unexampled prosperity has set in. In this connection it is as
 well to bear in mind the statements published in the last Board
 of Trade returns, showing the great increase that has taken
 place in the export of mining machinery during the past month.
 In May, 1894, it amounted to a total value of a little over £26,000;
 now, however, it has risen to the gratifying total of over £61,000,
 and there is every indication that even this latter sum will
 go on increasing in a proportionate ratio. This is still
 further supported by the figures for the first five months of the
 last three years. In 1893 the value of the exports up to the end
 of May was £156,649; the following year it decreased to
 £147,013, which is strong evidence of the great dullness of trade
 for that period; whilst for the five months of the present year it
 totals up to the large sum of £241,872, thus showing an increase
 of nearly £100,000 over the corresponding period of last year.
 Manufacturers of mining machinery will, of course, be amongst
 the first to benefit from this better condition of things, and no
 doubt the large and increasing amount of business that is likely
 to be given to them will make up for the depression that existed
 in the past. Bearing this in mind, then, the annual general
 meeting of Messrs. Fraser and Chalmers (Limited)—a firm in
 the very front rank of mining machinery manufacturers—has
 a peculiar interest. Last year was, unfortunately, not
 by any means a flourishing one. This, however, did not
 come as a disappointment. It was to be expected; indeed, it
 was prognosticated, and, therefore, the shareholders cannot
 justly feel disappointed. The Chairman, in his speech last year
 to the shareholders, said everything indicated that the year was
 not likely to be a prosperous one. It has turned out so. Now,
 however, an improvement during the first part of this year has
 taken place, and we look to a much greater improvement next
 year. So do the directors of Messrs. Fraser and Chalmers

Indeed, there is every indication that at the next annual meeting a different and more gratifying tale will be told. The Chairman said so in almost as many words. "I am happy to say," he remarked, "that since the close of the year affairs in America have looked a little better, and we hope that with increased orders there will be work for all the many concerns which have been more or less only half-working during the crisis, and that we shall get a fair share of business at fair prices." Everything has been done to meet this change of things. The financial position of the company has been materially strengthened; not only has the capital been reduced, but the directors have written off £15,000 standing to the credit of profit and loss. For this the board is to be highly commended, and it is evidence of how desirous and able they are to act in the best interests of the shareholders.

Coming to details, the business in America has been on a par with what was done in previous years, and acting on the same principal, the directors have written down everything they thought bad or doubtful, so that "when the days of prosperity return," the Chairman remarked, "we shall not have to limit our profits by such means, but the whole sum will be available for distribution, or rather remittance to the English company, which will make the division." At the Erith Works they have been even less successful. This, however, the Chairman explained, was not so much due to the lack of orders as to inexperience on the part of the directors and the staff. Being a new concern, people came to them for estimates; but it was extremely difficult to form an exact idea of the costs, owing to want of actual experience; therefore, much risk had to be run, and it was owing to this that the profit was smaller. This, however, can easily be remedied. It is all a matter of time, and, meanwhile, the experience gained will be so much to the good. The prospects for the current year are fair. "We are full of orders," said the Chairman, "and as far as I can judge, and as far as the technical management assures me, all the orders we have on our books show a reasonable and fair profit. Consequently, I hope when I have the honour of meeting you again to be able to give you a better account of the past year." There is a great deal of encouragement in the fact that the directors have the same confidence in the business as ever, and this they have supported by taking up, with their friends, the whole of the unapplied preference shares, to which the shareholders did not respond at all freely. In seconding the resolution for the adoption of the report, Mr. ATKINSON stated that the company's trade up to the present was at least one-third in advance of last year. Altogether, the shareholders have no need to be discouraged; they have every reason to be satisfied with the conduct of their affairs, and we hope their unanimous confidence in the board will be rewarded by an encouraging dividend next year.

THE RIO TINTO DEBENTURE SCHEME.

WE have received a copy of the prospectus of the latest financial scheme formulated by the directors of the Rio Tinto Company, the details of which, however, were unofficially made known some days ago. We do not intend to go into the merits of it, nor to criticise it with severity. This would be futile, for we believe that, despite the efforts of outsiders, the success of the scheme is assured. It is, we understand, underwritten by very strong people, and, therefore, it is not likely to be affected by criticism. Shortly, the scheme is as follows:—It consists in the issue of £3,600,000 Four per Cent. First Mortgage bonds for the conversion and redemption of the Five per Cent. First, Second, and Third Mortgage bonds. These bonds will be secured by a deed of mortgage and trust, in English form, whereby when the existing bonds have been converted or redeemed, the whole of the immovable property of the company in Spain, including the mines, the railway to Huelva, and the pier at that port, will be conveyed to the trustees as security for the bonds in priority to all other charges. The bonds will be redeemed by half-yearly drawings, the first of which will take place in June next, and the ordinary sinking fund will extinguish the whole not later than January 1, 1929, the company reserving the right to increase the sinking fund, or to pay off the whole or any portion of the bonds outstanding, at any time after June 30, 1905, on giving 28 days' notice. Applications in exchange for Five per Cent. bonds, which have not been previously drawn, will be received up till June 27 inclusive, and subscribers will receive allotment in full, being entitled for every £100 of the Five per Cent. bonds to Four per Cent. scrip of equal nominal value, and a cash bonus of £2. All outstanding Five per Cent. bonds not presented for conversion will be paid off at par, with accrued interest, on July 19, and will cease to bear interest from that date.

It will be seen from the above that the First, Second, and Third Mortgage bondholders will be treated on the same footing, which certainly appears strange, but which neither is likely to oppose. As a matter of fact, there are only three parties to consider in this scheme—the existing debenture-holders, the prospective debenture-holders, and the ordinary shareholders. Each party, however, is bound to derive benefit from it. The former will be repaid in accordance with the terms on which they lent the money; the second will lend money with their eyes open and with plenty of opportunity of considering the security; whilst the third will benefit by the receipt of increased dividends. It is futile to argue that the nature of the security does not warrant a lower rate of interest than 5 per cent. If people are perfectly willing to lend their money on a 4 per cent. basis it is their concern and no one else's. Under the existing deeds, the First Mortgage bonds would have been extinguished by drawings in the year 1913, the Second in 1917, and the Third in the same year. The new

bonds, however, will be redeemed by half-yearly drawings, and the ordinary sinking fund will redeem the whole of them not later than January, 1929. This will effect—which is the sole object of the conversion—a considerable saving of no less than £58,860 per annum as follows:—Amount to be set aside per annum to provide £3,400,000 at the end of 20½ years, £113,220; amount to be set aside per annum to provide £3,600,000 at the end of 33 years, £54,360; saving £58,860. By reducing the amount to 4 per cent., a further saving will be effected of £26,000, as follows:—Annual saving in revenue, 1 per cent. on £3,400,000, £34,000; less 4 per cent. on £200,000, the amount by which the existing loan is being increased, £8000, which, deducted from the former sum, leaves £26,000. This, added to £58,860, gives a total saving of £84,860, or 5½d. per share on a capital of £3,250,000. Thus the scheme increases considerably the value of the property, and brings about a state of things which everyone desires, and which no one is likely to seriously oppose. As for the security, it appears to be perfectly substantial. According to the prospectus, the extension and development of the mine has for years been kept in advance of current requirements, and by this means the company has many millions of tons of ore laid open, which will provide an uninterrupted supply for a period far beyond the duration of the bonds. It is added that at the present time there are contracts running for the supply of more than half a million tons of pyrites per annum, which are sold for both their copper and sulphur contents.

NOTES AND COMMENTS.

ALL the West Australian mining papers are jubilant over the downfall of rain which occurred at Coolgardie early in May, and for the moment English people, or at least agriculturists, will be able to understand their delight and envy their fortune. The downpour, which lasted all day, was preceded by a congenial thunderstorm, accompanied by lightning, which playfully uprooted a Masonic hall, killed a dog, and stunned a woman. So confidently have statements been made as to the rainlessness of the district that there were few preparations made to receive the flood, and consequently it was not turned to so good an account as might otherwise have been the case, notwithstanding that some of the older hands who had provided against the contingency caught several feet of water in the dams. It seems somewhat strange that in a country where a plentiful supply of water is a first necessity the arrangements made for catching the storms which do undoubtedly occasionally burst there should be of so incomplete and partial a character. That the necessary storage works would not in any case go unremunerated is shown by the fact that last year, which was by no means a good one so far as rainfall is concerned, most if not all of the dams paid for their build by their yield of water. There can hardly be much room for doubt that the storms will lead even the less provident among the miners to take the measures necessary in the event of a repetition.

THE North Queensland Register has again been making a bitter and vigorous attack upon the Government of the colony for the unwise attitude it still assumes towards the mining industry. It specially singles out for attack Mr. Philips, the Minister of Mines, who recently delivered a speech at the Mount Morgan, in which he spoke enthusiastically of the prospects of the industry. The Register prefers to designate this enthusiasm as "booming," and states that such an effort is really unnecessary if the Government would only do its duty towards providing proper railway and other facilities, and attending to the administration of the population's affairs. Mr. Philips claimed great credit for the assistance given by the Government to the prospectors. "But," says our contemporary, "he omitted to say that the money which was thus spent had been extorted from the pockets of the miners." After speaking highly in praise of Mr. Philips as an able and conscientious administrator, the writer expresses his surprise at the assertion that the most the Government could do is to provide better communication with the mines. "What," he asks, "would be the good of railway communication under the oppressive conditions affecting the mining industry, which preclude people who know something about developing mines, and who have spent years of time and large sums of money in opening them out, from investing their money in gold fields of the colony? What inducement is there to develop our gold fields?"

LAST week we had occasion to speak encouragingly of the Croydon gold field, Queensland, stating that it was now coming rapidly to the front. We were unable, however, to quote any figures in support of our statement, but during the week we have received the needed statistics. These are contained in the report of the Warden, Mr. Parkinson, who states that the produce of gold for the first quarter of the current year shows a marked improvement on the corresponding quarter of last year, being an increase of 2999 ounces from stone treated; and, with the yield from tailings treated under the cyanide process, the total increase is 11,021 ounces. The total amount of stone treated was 11,466 tons 15 cwt., yielding 16,250 ounces 10 dwts., the average per ton being 1 ounce 8 dwts. The produce from the three cyanide works was 8021 ounces 15 dwts., and thus the total produce for the quarter was 24,272 ounces 5 dwts. "This yield," he says, "may be looked upon as most satisfactory, and shows that the field is making progress, although a number of the mines were under exemption during the quarter, owing to the heavy rains." It is a well-known fact that this progress is due in a great measure to the introduction of the cyanide process; and when the latter has been more extensively used, there is no doubt that we shall see a very large output from this growing field. The following is a comparative statement

for the quarter ending March 31, 1895:—Result from crushing 11,456½ tons, 16,250 ounces 10 dwts.; result from cyanide, 8205½ tons, 8021 ounces 15 dwts.

THE action of the directors of the Blue Spur and Gabriel's Gully Consolidated Gold Company in foregoing their claim to fees for the past year and also for their fees in the previous year, is commendable, and no doubt at the pending meeting the shareholders will show their appreciation of it by further expressions of confidence. At the same time the directors are acting only in accordance with honour and justice, but as such actions are very rare in these days, especially on the part of mining company directors, it is deserving of more than ordinary praise. It is certain that though they may lose a little at the present time (in a pecuniary sense we mean) the shareholders will, as they are always ready to do, reward them in a substantial manner when the affairs of the company are in a prosperous condition. When the latter state of things is likely to arrive, present indications do not prophecy with certainty. The past year has undoubtedly resulted in a very encouraging gross profit of £8104. As the directors renounce their fees on the condition that they should be applied to a reduction of the debt to the banks, the latter has been reduced to £5600, a sum which they hope to pay off during the coming year, provided the yield goes on as satisfactorily as during the last twelve months. The company will then begin the financial year of 1896-7 free of debt, and the probable (the italics are ours) surplus in profits will be available for dividends on the ordinary shares. The directors announce in this connection that the company is now liable to only one bank, as the Colonial Bank of New Zealand has recently discharged the debt to the Bank of New Zealand, and thus become sole mortgagee. At the present moment everything at the mine looks well and promising, and it is to be hoped that at this time next year the directors will be able to declare a small dividend to the patient shareholders.

THE acquisition by the Anglo-Mexican Mining Company, on favourable terms, of a new property, is one of the most promising features in connection with the present position of the undertaking. Works of a fairly extensive character have, it is said, been undertaken to put the San José de Gracia into good working order, and before the company is much older results should begin to accrue. The acknowledgment made at Monday's meeting of the services rendered by Mr. Hughes in acquiring the new property for the company was at once timely and graceful; for there can be no doubt that in taking this step he has conferred a signal benefit upon the company. While, however, the shareholders are looking forward hopefully to the fresh turn affairs may take, and the new mine has begun to open up, the old properties must not altogether be left out of account. Still, it is perfectly natural that with Mr. Hughes' detailed, and, at the same time, encouraging report on the new mine before them, the greater part of the shareholders' attention should be attracted thitherward. At this early stage it would be hazardous to speak with too great an appearance of certainty of the San José, notwithstanding that indications up to the present have been undeniably favourable. We can, in conclusion, only hope that the present expectations of the company may be fully realised.

ABUNDANT justification was given at Wednesday's meeting of the Kangarilla Silver Mines to the views we advanced with some reserve in our columns of Saturday last. More favourable as it certainly was than any statement formerly placed before the shareholders, the Chairman's somewhat extended and egotistical history of a year's energetic work at cleansing the Augean stables was still, so far as it bore upon the future, of a vague and colourless sort. Mr. Davis inferred very clearly in his complacent address that the company was well out of the wood, but we find ourselves wholly unable to concur in that view—whether the circumstance be due to a cast of the mental faculty, or to the existence objectively in the company's position of a justification for this dissent. The company is on the eve of a great success; it only remains to get down to water level to yield an abundance of rich ore; dividends, not only for the priority, but for the ordinary shareholders, lurk in the future. But these phrases come to our ears with something of an accustomed ring, and before their realisation the process now in course of adoption has to be worked successfully on a commercial scale. It is certain that the Chairman and the other members of the board have worked hard at rescuing the company; but it would have been graceful of Mr. Davis to have conceded a little more credit to his colleagues, and to have taken a little less to himself. The gentlemen responsible for the control of the City papers will probably find enough resolution to support unmoved Mr. Davis' criticisms as to the amount of space they give to the meetings of the Kangarilla Company; but Mr. Davis ought not unduly to precipitate in his own mind the conclusion that he says much, if anything, worthy of being embalmed in the dignity of print. It is conceivable that other people might join issue with him in the matter.

ACCORDING to the accounts which are being continually received from the property, it appears that one of the most promising of the West Australian Gold Mines is the Zappan, the directors of which have just issued a circular to the shareholders, which should powerfully prevail upon the latter to retain their interest in the company. The information contained in the circular, in the shape of extracts from the manager's last report, is certainly pleasing and gratifying. Mr. J. H. C. Hillson reports the engagement, as working mine manager, of Mr. Adam Johns, who has inspected the property, and who states that Mr. Woodyatt has not exaggerated the large bodies of stone available. "In fact," says Mr. Hillson, "a very strong reef, averaging 4 feet in thickness, was discovered in November last on the eastern side of a large body of stone on lease No. 313, 100 tons of which produced 146 ounces of stone. Shareholders will also be delighted to

hear that since Mr. Woodyatt visited the property it is looking better. Considerably more stone has been laid open, "and, what is better," says Mr. Hillson, "it is richer." The manager likewise advises that he has received offers from local tributors to work portions of the company's property on tribute; and as they have offered the unusually high tribute of 50 per cent., whereas 10 per cent. has usually been regarded as the maximum, he rightly regards this as an indication of what the property is like. The directors have now authorised the erection of the new battery and stamps, and, therefore, the resumption of crushing may be expected in a few days.

THE extract of Captain Richard's report, read at the recent meeting of the New Clyde Gold Mines, was of an encouraging character. The most decisive sentences ran as follows:—"With the exception of only a small portion at the north-east end, the whole of the area is completely covered with alluvial deposits, in some cases running to a considerable depth below the surface. Trenching has exposed several subsidiary veins and reefs, from which a large quantity of gold has been taken by dollying. What appears to be the main reef enters the north-east boundary from Ritanita. There is every reason to believe the reef is a splendid one, and extends the full length of the property." Having regard to the fact that the deeds of transfer were only received by the colonial representatives of the company a few weeks ago, the business of the undertaking is now well in advance. Mr. Wright has been retained as manager and departs immediately for the property, with which he is very familiar, having resided there some considerable time, and about which he is able to say:—"Generally, I take it that the Clyde and Clyde Extended Mines are as valuable as any on the Coolgardie gold field. I am of opinion that in this mine you possess one of the most valuable in the field, which cannot fail, when adequate machinery is erected, to return the shareholders very handsome and regular dividends."

A MR. HUMPHREYS has bonded the Starlight Mine, which is situated on the Toad mountain, in British Columbia. This is looked upon in the district as a very serious and important step, for upon the success or failure of the undertaking a great deal depends. It is regarded as a very promising mine, however, and little doubt is felt that it will prove to be exceedingly rich. This opinion is held, notwithstanding the many attempts that have been made to prove the wealth of the Toad mountain. For a very long time the presence of gold was suspected, and operations some four years ago at the Golden King caused much excitement, but nothing came of it. Now further interest has been renewed by the success attending the work done on the Starlight claim. There seems to be a general impression that the opening-up of the claim will do one of two things; either give an immense impetus to Toad mountain mining, or a blow from which it will take long to recover. Mr. Humphreys is understood to represent a syndicate or company of men at Daluth, who have acquired claims in other parts of British Columbia, the development of which they have prosecuted with commendable vigour. The representative mining paper of the district—*The Miner*—evidently looks to a great future for the home field, and remarks that all over the mountain, right up to Nelson itself, ledges containing gold have been found in every direction, and, moreover, that there are strong indications that the gold-bearing belt on which the Trail Creek Mines are situated, turns northwards, and forms the material of which Toad mountain is built.

No one seems to be able to say a good word on behalf of the Denny Dalton Syndicate. The Press, especially, ridicules the efforts of the directors to successfully work a property which, up to the present, has given no indications of great wealth. We confess that there is much justification for this, for the directors have only led the shareholders on with promises, without any encouraging performance. Still, when we bear in mind that this is the position held by a great number of other mining concerns, we restrain our wrath and hope that all may yet be well. At present, however, there seems not the slightest indication that any such consummation will result. The official report which was recently issued by the directors contains, once more, nothing but promises. In the space of two weeks, 400 tons of ore were crushed by a 10-stamp battery, yielding 90 ounces of free gold caught on the plates, or an average of 4½ dwts. over the plates. The document in question further says:—"Details of the value of the concentrates have not yet been arrived at, but they have improved approximately in the same ratio as the free gold has. It will be remembered that up till about May 29 the record clean-up of amalgam off the plates was 20 ounces, being from 25 tons of unsorted ore. The manager, in his report of that date, hoped to increase this to 25 ounces by separating the overlying bedrock from the proper ore, with the encouraging result that after the date mentioned, up to June 7, the average clean-up from the plates was 30 ounces of amalgam per day, equal to 6 ounces of gold, or just upon 5 dwts. over the plates." The value of the concentrates is not known, but the directors assert positively that "they have improved approximately in the same ratio as the free gold."

In connection with this, it is very interesting to note what a local paper says of this property. A writer in the *Natal Mercury*, who, by the by, is evidently rather friendly disposed towards the company, says: "Denny Dalton and its crushing have been the one topic of conversation on these fields for the past fortnight. Everyone seems to have prognosticated failure, yet, when the blow did fall, it came as a thunderbolt on many. The only people who do not seem to have turned a feather are the Messrs. Denny. They have been experimenting on an unproven property with an equally unproven plant—a plant which was to revolutionise the gold mining industry of South Africa, but hasn't." Dealing with Mr. Balok, who has been trying to "boom" the property, the writer proceeds: "In the course of an interview with a *Witness* representative, he states that not 50 per cent. of the ore crushed carried gold. He may be correct,

but I should feel rather inclined to believe the evidence of the employees of the mine, who make no secret of a different version. He further states that, at the present time, a change of management would be a fatal mistake. I am rather inclined to the opposite view. The Messrs. Denny have had their innings; let somebody else have a chance. I have always maintained that the Denny Dalton Banket Mine is a 'payable mine, and I shall still maintain so until the contrary is proven." The writer, therefore, seems to hold a good opinion of the property, but not of the directors. As a matter of fact, it appears to be against the directors that the whole of the ridicule of the Press is directed.

It is a sign of great promise at the present time in connection with the revival now going on in the stock and share and the general buying and selling markets of the kingdom in metals and manufactured goods, that the recent reports from America of improvement in the Transatlantic iron and metalliferous trades is fully upheld. This week it is announced, with a considerable show of authority, that quite a "boom" is going on on the other side of the water. Advises state that the business world in Europe seems to have but an imperfect notion of the remarkable improvement which is taking place in the American iron trade and metal-working industries. Personal investigation in the Pennsylvania iron centres by the senior of a large banking house is said to have revealed the fact that the large works are full of orders for manufacturing, building, and other industrial machinery and material, and that for the first time for several years some of the establishments have had to refuse orders. So far, the railways have given out but few orders for rails or rolling stock, but if the business situation continues to improve as much as recently, the railway companies will be obliged to place orders for iron and steel. Even as matters now stand, the orders on hand are fairly remunerative, and will occupy the works well into the autumn. Already the English markets are benefiting by this revival. General satisfaction is this week being expressed both in the North and in the Midlands at the fact that American orders for baling hoops or cotton ties are once more finding their way freely to this country, owing to the recent rise in American prices, large orders for steel hoop have been newly placed in Lancashire, Yorkshire, and Staffordshire.

M. HENRI BOUSQUET, one of the most prominent financial writers of the Parisian newspaper world, and who devotes an especial attention to mining, has just returned from South Africa, where he has been studying the question of Deep Level mining from a commercial point of view. His main result—the text of an able and interesting article contributed to a leading newspaper—is a decided leaning towards Deep Levels as a source of profit. Nor is this founded upon any blissful ignorance as to the peculiar difficulties encountered by miners pursuing their work in the lower strata of the earth's crust. Temperature, water, and general mining costs, all in turn pass under review, and are carefully weighed and assessed at their respective values. But after it all—when details have been gathered and conclusions drawn—"it may be confidently asserted that the exploitation of Deep Levels will be as profitable and remunerative as that of upper strata." It does not rest with us to appraise the effect which so decided an utterance will have upon the Parisian public, but in all events it must necessarily have considerable weight, and give an additional impetus to the mining spirit already well marked on the other side of the Channel.

THE MINING MARKET.

FRIDAY EVENING.

A Holiday Week.—Changes in Kaffirs Irregular.—Chartered Closing Good.—West Australians Quiet.

OUR anticipation that Royal Ascot would prove a formidable rival to business in Throgmorton-street has been borne out by the event, for during the past week the Stock Exchange has been given over to idleness. Members generally have made plenty of money during the mining boom, and are glad enough of an excuse for spending it in a royal fashion. It may be expected, therefore, that the further social functions of the season which demand a liberal outlay, such as Henley Regatta and the Goodwood week, will similarly prove serious competitors to the Stock Exchange business.

On those days when the counter-attraction was not actually in force, business was on a satisfactory scale. On Saturday, in particular, when it might have been expected that the attendance would be thin, a very firm tone was displayed in the Kaffir Circles. Gold shares were active, and several substantial advances were established. The buoyancy of Chartered continued, but otherwise Land shares did not command much attention, though the upward tendency was maintained. West Australians were steady, with little doing, and prices were inclined to improve in the Miscellaneous section. On Monday, the opening was strong, with advances all along the line in Kaffirs. Profit-taking, in readiness for the exodus to Ascot, caused some relapse in the middle of the day, but the closing was good again, leaving many instances of marked advance. Land shares generally showed a disposition to revive, and there was more doing in West Australians. Indians were goodish under the lead of Champion Reef, and one or two Charters Towers varieties were higher. On Tuesday, despite the absence of the sporting contingent, plenty of quiet investment orders were executed, support coming from the Continent as well as the Provinces. At the close the African Gold list showed irregularity, though prices were always steady. There was a fair amount of business in West Australians, and several low-priced Miscellaneous shares went rather better. On Wednesday the buying orders received by post caused a strong opening for Africans, but there was at once a rush on the part of professionals to secure profits, after which dulness supervened until the last hour. A similar course was observed in the Miscellaneous section. Very little notice need be taken of the small movements of this day, and the same remark applies with even greater force to Thursday's doings. The Mining Market generally wore a most deserted appearance, and business was on so small a scale as not to be worth particularising, except for the somewhat excited movements in Diamond shares, to which

we refer below. To-day the holiday spirit has been, if anything, intensified by the approach of the fortnightly Settlement, for which the Contango work will commence in the morning. Such movements as there have been are the result of closing transactions in either direction. Thus those shares which were sold speculatively a day or two ago, have rallied slightly on repurchases, and others which had risen, have reacted. The steadiness evinced by prices in the absence of a substantial business is a satisfactory tribute to the inherent soundness of the market. The weak speculative element has been to a large extent weeded out, and the investment buying in progress is of sufficiently strong a character to prove serviceable in the ultimate revival which popular expectation—a most delusive guide—assigns to the early autumn.

South African Mines.

Quite a prominent lead has been taken this week by Buffelsdoorns which have been persistently bought, with the result of scoring a rise of 1½ at 6½. The advance is due to a combination of causes, such as the publication of the report of the meeting of the shareholders in Johannesburg last week, repurchases by holders who had sold against allotments of new shares in the delivery of which there was delay, the announce ment of the May crushing at 4384 ounces, the striking of the reef below the dyke on the seventh level, and the rumoured acceptance of the chairmanship of the company by Sir Edgar Vincent. The interest evinced by this financier in the Rand industry is said to be carrying great weight with French investors. Glencairns are unchanged at 4½, in spite of the announcement of a dividend at the rate of 15 per cent., or just double the distribution of the previous half-year. New Primroses likewise are unaltered at 6½ on a 25 per cent. dividend, as compared with 20 per cent. for last time. New Crocus were in demand on Monday, in anticipation of the result of the first crushing. The shares are ½ better at 2½. Pleiad's have commanded special attention and are ½ better at 1½, whilst Ian Langley Royal have had a set back of ¼ to 3½. Spes Bona jumped ¼ on Saturday to 3½, but have failed to maintain the improvement. Kimberley Rooferport rose ¼ to 3½, but relapsed this afternoon, and Ginsberg are a shade harder at 1½. The publication of the report and balance-sheet of the three Robinson Companies affected their respective shares in different manners, for whereas Langlangte are ½ better at 5½, Block B's have been sold down from 23s. 6d., at which they stood on Monday, to 23s., a net loss on the week of 1s. It is pointed out that although the company has freed itself from "working at a loss" stage its profit of £22,000 is meagre enough. The Randfontein statement showing that the shares derived from subsidiary companies have a market value of a million and a half sterling has not sufficed to maintain the quotation, which closes at 43s. 8d., after 45s. 6d. in the middle of the week. East Rand have been special favourites during this week, and after twice going over 5, close ½ up at 4½. Anglo has attracted attention, and spurted ½ to 4. A special feature of strength has been Goldfields Deep, ½ better at 7½ on the announcement that the transfer of the Booyson property has been completed. Rand Mines have given way in the absence of active support, and close half a point down at 31½. Goldenhuis Deep are half a point up at 9½, whilst Rooferport Deep are ½ easier at 4½. Champ d'Or Deep were largely bought on Monday and Tuesday for Paris, and then showed an improvement of ½ at 2½, but the top price has not been maintained. The heavier priced shares generally have given way on the lack of business. Simmer and Jack were strong on Saturday at 17½, but they have since sagged away to 16½, a loss of 1½ on the week. To-night an interim dividend of 10 per cent. is announced. Modders are ½ down at 15½. City and Suburban rose to 27 on Monday on a scarcity of stock, but have since reacted to 26½. This is still ½ better than last week. Robinson's have improved ½ to 9½, the spurt coming on Saturday and Monday. Meyer and Charlton, on which a dividend of 25 per cent. has been declared, are practically unchanged at 7½. A dividend of 22½ per cent. has been declared on Rooferport United, but the market in these shares is very limited. There was a spurt in Minerva on Monday and Tuesday, on the news that the Orion Reef had been struck on the property at 50 feet, and that crushing will commence not later than August. The shares are ½ better at 2½. The demand for Spitzkopps has been renewed, carrying up the price ½ to 1½, whilst the buying of Lisbons has been quite a feature of the week. On Wednesday the price advanced over 8s., but there has since been a set back to 7s. 6d., which is still 1s. 3d. up on the week. Knights were strong on Monday, advancing within a shade of 9, but the last price, 8½, is only ½ better than last week. Van Ryns are a shade better at 9, with Van Ryn West ½ up at 5. Village Main Reef are ½ better at 7½. Kleinfonteins have been steadily picked up, and close nearly half a point better at 5½. Amongst the shares which have put on small fractions without the manifestation of any special activity, may be noted Clewer Estate at 1½, Ferreira at 17½, Heriot at 11½, Orion at 3½, Salisbury at 5½, Sheba at 1½, Transvaal Gold at 5½, Wolhuter at 7½, and Stauhope at 1½. In a like manner insignificant declines are shown in Metropolitan at 2½, Main Reef at 1½, Jubilee at 10½, and Goldenhuis at 6½. Wommer had a spurt to 12½ on Saturday, but failed to maintain it, and closes ½ down on the week at 11½. Consolidated Gold Fields are ½ better at 10½, buying being attributed to the commencement of operations on behalf of the Brussels Mining Trust, the management of which is in the same hands as the Gold Fields Company. The formation of this concern is regarded as a very potent factor in the maintenance of the boom. Gold Fields preference shares have advanced to 24s. 6d., and the debentures are a couple of points better on the week at 11s. Gold Trusts are ½ higher at 7½, and Johnny's Investments are a shade higher at 4, after being 4½. A big business has been done in Chartered, which have not however, gone ahead of the best price of last week. A curious move on the part of an outside dealer was to send telegrams broadcast advising a purchase of these shares at 4½. The dealers in the Market thought this quite good enough to put the price down upon. On Wednesday Chartered were offered at 4½, but there has since been a rally to 4½, at which they close good. The general impression is that these shares will be considerably higher before the end of the year, though it is impossible to forecast the intermediate course of the market. A renewed demand has sprung up for Potchefstroom, which went over 2 during the height of the boom, and afterwards broke away to 2. The week's dealings have resulted in a net gain of 10s. at 1½. Klerksdorp have been over £1, but close practically unchanged at 19s. Mozambiques are 1s. 6d. up at 31s. 6d. after being 33s. Zambesia at 3, Oceana at 2½, and Bechuanaland at 2 7-16, show no change on the week. There have been some sensational movements in Diamond shares more especially on Thursday, when De Beers advanced strongly to 22½, on the statement that the shares are to be split into Preference and Ordinary, a move which always results in a gain in market favour. To-day there has been some reaction, but the last price, 21½, shows a gain of the odd fraction on the week. Simultaneously with

the popularity of De Beers, there was a big movement in the opposite direction in Jagers, which, under the pressure of a large seller, fell nearly £1 to 9. To-day there has been some recovery to 9½, which still marks a loss of ½ on the week. St. Augustines are 1s. 9d. lower at 10s., on a poor return from the mine.

West Australians.

There is very little to write about in this section. A fair amount of quiet business has been done, but there have been no sensational movements. Londonderry have fallen away to ½ on the absence of official confirmation of various unauthorised rumours. Shareholders are, not unjustifiably, feeling aggrieved at the continued reticence of the directors as to the real state of affairs with this undertaking. Great Boulders have been in some demand, and close ½ higher at 1½. Golconda rose to 1½ on Saturday, and closes unchanged at 1½. Hampton Plains are a shade harder at 2½, and the Lands 4 better this afternoon at 4½. Small gains are shown in West Australian Exploration at 2, Finance at 1½, Gold Fields at 3½, Gold Estates at 1½, and Zapopan at 7s. 3d. whilst declines are seen in Big Blow at 7½, Murchison Gold Fields at 6s., Sherlaw's at 10s., Star of the East at 7½, and Idaho at 5s. 3d. West Australian Concessions are especially depressed at 1½, and the day's loss has amounted to ½.

Miscellaneous.

In Copper Shares a good deal of attention has been attracted to Rio Tinto by the Debenture Debt Conversion Scheme, the success of which has been assured. The shares are ½ easier at 16½. Tharsis are ½ better at 4½, whilst no change is shown in Capes at 2, Mason and Barry at 2½, and Libiola at 3½. The only notable change in the Indian group is a recovery of ½ in Champion Reef at 4½, on the receipt of more favourable news from the mine. In the New Zealand group, the feature has been the strength of Hauraki, which leave off 9d. better at 12s. 3d., with Kapangas 6d. up at 10s. Waihi Gold is ½ down at 6½. Wentworths have been bought by insiders, and close ½ better at 4½. Broken Hills have given way to 2½, in spite of the declaration of the customary 1s. dividend. British are unchanged at 8s. 6d. The Charters Towers group has been slightly affected by small fluctuations in Mills Day Dawn, Brilliant Block, and Day Dawn Block, all of which, however, leave the shares in *statu quo*. Straits Developments are a shade harder at 1½, but La Reine d'Or are 1s. 9d. easier at 16s. 3d., and movements in the low-priced rubbish are not of sufficient importance for detailed mention.

STOCK EXCHANGE SETTLING DAYS.

Settling Days on the Stock Exchange are as follow:—

CONSOLS.—Monday, July 1.

STOCKS AND SHARES.

JUNE.

Ticket Days.	Account Days.
Tuesday, June 25	Wednesday, June 26
Wednesday, July 10	Thursday, July 11
Thursday, July 25	Friday, July 26
Contango Days for South African Market:—	
Saturday, June 22	Monday, July 8

LATEST FROM THE MINES.

CABLEGRAMS AND TELEGRAMS.

AFRICAN GOLD RECOVERY.—The directors announce that 57,500 ounces of gold have been recovered at the Rand and 8700 ounces in other districts (total 66,200 ounces) during May by means of their MacArthur-Forrest cyanide process. The April total was 62,900 ounces.

ANGLO-MEXICAN.—Advices received from the mine report the output for May as 2100 tons for 28 days' run, amounting to \$106,000 U.S. gold coin.

BRILLIANT BLOCK.—The directors have received the following cablegram from the head office in Charters Towers:—"Have crushed during the month 2376 tons of quartz for a yield of 2258 ounces of gold. The profit on the run is £4600. The approximate value of this return is £7800."

BROKEN HILL PROPRIETARY.—The directors announce that the usual monthly dividend of 1s. per share has been declared, payable on July 17, the books for which will be made up on the morning of the 3rd of that month.

BROKEN HILL PROPRIETARY.—For the week ending June 20, 8429 tons of ore were treated, yielding 653 tons of lead, containing 174,791 ounces silver; also 1487 tons treated by amalgamating and leaching plants, producing 15,618 ounces silver. The price of the shares in Melbourne is £2 4s. buyers.

BAYLEY'S REWARD No. 1 SOUTH.—The following cable, dated June 20 has been received by this company's London office from its head office at Melbourne:—"Fortnight's run 164 ounces, 200 tons."

BUFFELSDOORN ESTATE.—Production for May, 4384 ounces. A great amount of surface work has been done. The London agents announce receipt of the following cable:—"Reef has been struck below dyke on 7th level, and assays well."

CHAMPION REEF.—The directors have received the following cablegram, dated June 15, reporting an important improvement in the deepest point in the mine:—"Garland's shaft 2 feet assaying 4 ounces 10 dwts. per ton. 840 South Garland's 5 feet 6½ inches, assaying 1 ounce 18 dwts. The directors have decided to make a further addition to the stamping power forthwith."

CUMBERLAND GOLD.—The directors have received a cablegram announcing that a reef of low grade ore, 3 feet thick, has been met in the No. 5 level north in the company's mine.

DAY DAWN P.C.—The following cablegram has been received from the manager at Charters Towers, giving the result of the crushing for the fortnight ended June 15:—"Shaft No. 3, 160 tons, 236 ounces."

DAY DAWN BLOCK AND WYNDHAM.—The directors have received the following cablegram from the general manager at Charters Towers, giving the result of the crushing for the fortnight ending June 15:—"Tons crushed, 905; yield of gold, 719 ounces; approximate value, £2500; fortnight's expenses, £1584."

ELKHORN.—Bullion produced in the mill for the week ended June 15, 8800 ounces.

GLENCAIRN MAIN REEF.—The London agents announce receipt of the following cable:—"Dividend for the half-year 15 per cent. Transfer-books will be closed from July 1 to July 10 inclusive." The dividend for the previous half-year was 7½ per cent.

GRAVEL GOLD MINES OF COLOMBIA.—The superintendent wrote, under date April 21, that, as a break on the ditch had occurred which would take about one month to repair, the sluice had been cleaned up on March 29, and £330 of gold obtained, after running about 600 hours. On May 9 the superintendent reported that the ditch was repaired and wash-

ing recommenced, and to-day a cable has been received of a clean up of £500, after running 620 hours.

GREAT SOUTHERN TIN AND GOLD FIELDS.—The mining manager cables:—"Toora, Australia, May 11. During the past fortnight have driven 18 feet, making total driving of 362 feet 6 inches, out of a total length of 1000 feet, this being the only tunnel on the line of race. Cost, 27s. per foot, being 3s. per foot less than the engineer's estimate for driving."

HAMPTON PLAINS EXPLORATION.—The following information has been received by cable:—"Hampton Plains Exploration Company (Limited) are in good ore; average sample taken from 8 feet deep gave 3 ounces per ton."

ISLE OF MAN.—The secretary has sold 100 tons of this company's ore at £9 1s. 6d. per ton. The secretary has also sold 100 tons of ore at £7 7s. 6d. per ton.

KABOONGA.—The following is a copy of cablegram received from the manager at the mine:—"Pushing forward with south crosscut; driving most satisfactorily; south-west drive extended by 93 feet. South-east drive south crosscut, 82 feet; bedrock dipping south."

LADY LOCH.—The manager at Coolgardie, Mr. McCracken, cables as follows:—"Have struck good gold in the eastern crosscut; it is still improving." A further cablegram states:—"The eastern crosscut, new discovery; prospects excellent; 5 ounces per ton."

MATABELELAND ADVENTURERS.—The directors have received a cablegram from Bulawayo stating that the transfer of the properties sold to the Rhodesian Mining and Finance Company (Limited) has been duly executed. The managing director is now on his way home.

MOSMAN.—The directors have received the following cablegram from Charters Towers:—"Have crushed 83 tons of quartz from the North Australian shaft for a yield of 109 ounces of gold. From the company's Rainbow tribute 57 tons have been crushed for a yield of 230 ounces."

MAY CONSOLIDATED.—The cable message, dated Johannesburg, June 14, has been received at the office:—"The profit for the past month (May) was £7164."

NEW CHIMES.—Profit for last month was £3353.

NIGEL.—Cable dated June 17:—"Have declared a dividend of 10 per cent. to all shareholders registered on June 28." (The warrants for this dividend may be expected to reach the European shareholders from the head office in South Africa at about the end of August next.)

NEW PRIMROSE.—The London agents announce receipt of the following cable:—"Dividend for the half-year 25 per cent. Transfer-books will be closed from July 1 to July 10 inclusive." The dividend for the previous half-year was 20 per cent.

ORIENT.—The following cable, dated Cairns, Queensland, June 20, has been received:—"Tunnel has been driven 12 feet (making 154 feet since driving started). The improvement continues. Everything is going right."

SILVER KING.—Manager's report first half of June: crushed 1000 tons ore, produced 11,000 ounces silver.

SIMMER'S GOLD.—The following telegram has just been received from the manager:—"Have had samples assayed with the following results:—21 dwts. per ton; 27 dwts. per ton; 35 dwts. per ton; prospects are encouraging. Have secured the adjoining 12 claims in the same locality as the company's property."

SIMMER AND JACK.—Last month's profit was £10,600.

SPITZKOP FARM.—The directors are in receipt of a cable from the mine announcing "that the conditions and prospects of workings are most encouraging."

ST. JOHN DEL REY.—The following telegram has been received from Mr. Chalmers:—"Produce 10 days first division June 11,000 oitavas, equal to 1263 ounces troy; value, £4262; yield per ton, 7.8 oitavas ('8990 ounce troy)."

TRANSVAAL COAL TRUST.—The following is a copy of a cablegram which has been received from the Transvaal Coal Trust Company (Limited) at Johannesburg, with reference to that company's operations for the month of May:—"Output, 30,200 tons; profit, £4750."

VAN RYN.—Copy of cablegram received from Johannesburg:—"Net profit for month. Mill, £1535; cyanide works, £1241; total, £2776."

VICTORIA GOLD MINING ASSOCIATION.—The following cablegram has been received:—"Fortnight's crushings 280 tons, yielded 684 ounces gold. A dividend of 6d. per share has been declared, payable on and after July 8 next."

WEST AUSTRALIAN GOLD CONCESSIONS.—The directors have received a cable from their representative at Perth stating that the Princess Royal Mines, Cue, Murchison Gold Field, have been transferred to the company, and that Mr. Thomas Butement, M.A.I.M.E., Assoc. Sch. Mines, Otago University, has been appointed manager.

ZEEHAN-MONTANA.—The following telegram has been received, dated Hobart, June 19:—"Have shipped 115 tons of first-class ore per s.s. *Darmstadt*." Dividend warrants for the further dividend at the rate of 4d. on each fully paid share and 2½d. on each share 12s. 6d. paid, making a total distribution of 1s. 4d. and 10d. per share respectively out of the profits for the year 1894, will be posted on July 1.

LION (Mozambique).—Report from the superintendent engineer (Mr. Nines) for the month of April: Drive No. 1. Measurement for the month 25 feet, total length 335 feet. The ground has been harder during the month. Drive No. 2. Measurement for the month 41 feet, total length 235. We have struck a reef here about 2 feet thick, showing well in the pan. Will write you more fully about this in my next. By last mail I sent you cablegram as follows:—"No. 2 drive. Have struck pay ore." We have a large stock of Kaffir meal on hand.

Messrs. CLAYTON AND SHUTTLEWORTH notify, that on and after June 24 their London office and show rooms will be at 95, Queen Victoria Street, E.C.

MINERS' MANNERS.—The historic "arf brick" still has vogue as a complement in the mining districts. But the polite pitman no longer waits for strangers to come between the wind and his nobility; his courtesy now extends, it appears, to his own chums. This became manifest the other day at a West Riding colliery, where a miner, riding on a train of corves, was saluted with the missile as he passed a couple of toilers. Had it struck him the lives of all in the same workings would have been jeopardised, as it was part of his duty to signal to the man in charge of the stationary engine when anything went wrong with the train. In default of such warning, the corves would have continued to be toggled along until brought to a standstill by some obstacle. Thus, the flying half-brick not only endangered the life of this particular man, but might have caused a general catastrophe. The magistrates, nevertheless, took into consideration the evidently friendly intention of the thrower; after all, it was only the miner's way of saying "God speed" to a travelling comrade, and so might even be regarded as an indication of superior culture. A fine of 10s. was, therefore, regarded by the Bench as an adequate penalty, and, no doubt, the cult of the "arf brick" will flourish more than ever in the West Riding. Of course, we have not a syllable to say against this triumph of local feeling over outside prejudice. We merely touch upon the little matter as a caution to visitors not accustomed to mining matters that, should missiles rain around them, they are to regard it as a friendly welcome to pit-country.—*Glas.*

THE METAL MARKETS.

LONDON METAL MARKET.

THE METAL MARKET, LONDON, JUNE 21.

Copper.

THE G.M.B. markets opened uneventfully with business at £43 for September dates and £42 11s. 3d. s.c. up to £42 13s. 9d. being paid later on in the day. In the afternoon, however, the effect of the unfavourable statistics made itself felt, and £42 11s. 3d. s.c. was done again, with three months at £42 18s. 9d., whilst Tuesday brought a further decline to £42 5s. s.c. and £42 13s. for three months. The transactions were large, amounting for the day to 1250 tons, and values recovered ere the close to £42 15s. three months and £42 8s. 9d. s.c. On Wednesday 850 tons changed hands at about the last prices named. Yesterday's turnover totalled 550 tons, and the prices realised were, for spot, £42 7s. 6d., to £42 6s. 3d., and for forward £42 15s. and £42 13s. 9d. To-day's business consisted of 850 tons done at £42 7s. 6d., to £42 10s. s.c. and £42 15s. to £43 three months, and we close firmer at £42 12s. 6d. to £42 13s. 9d. and £43 to £43 1s. 3d. three months. The shipments from North America for the first fortnight were heavier than anticipated, and the Obili charters were also large. The greater steadiness shown at the close of the week is due rather to absence of eagerness to sell than to any indications of eagerness to buy.

Tin.

Was depressed at the outset by speculative sales, and the earliest business was at £62 2s. 6d. to £62 5s. s.c., and £62 12s. 6d. to £62 7s. 6d. three months, a fall of about £1 per ton upon the previous week's close. The business done amounted to 250 tons. The total for Tuesday and Wednesday was about 285 tons, and prices moved within the range named above, the tendency being all the while very dull, and demand quite insignificant. Yesterday there was a still further shrinkage of business, the total being only about 24 tons, but there was a small enquiry for cash tin, and this served to improve values, £62 9s. 9d. being reached for spot, and £62 15s. for three months. To-day the reaction continued, and we close after business up to £62 2s. 6d. s.c. and £63 10s. three months firm, at £62 17s. 6d. to £62 18s. 9d. s.c., and £63s. 5s. to £63 6s. 3d. three months. In the Dutch market there was at first a drop from fl. 37½ to fl. 37 s.c. Billiton, but an improvement set in here also, and this morning's telegram quoted fl. 37½ s.c. and fl. 37½ three months, with Banca at fl. 38.

Pig Iron.

In Glasgow on Monday a small business in Scotch pigs at 43s. 2½. to 43s. 3½d. cash; on Tuesday rather more was done and values improved to 43s. 4½d.; 43s. 5½d. was paid on Wednesday, 43s. 6d. and 43s. 5½d. on Thursday, and up to 43s. 9½d. s.c., the market closing, after a good business, firm with buyers at the last price. Hematite closes at 43s. 9½d., and Middlesbrough at 35s. 5½d. The Scotch shipments for last week are given at 6816 tons, as against 8026 tons for the same week last year.

Spelter

has remained quiet throughout, but values have ruled steady at about last week's closing figures. We quote to-night £14 10s. for ordinaries, and £14 12s. 6d. for specials.

Antimony

is firm, and unaltered at £32.

Quicksilver

shows no change of phase or of value, the article being still quoted at £7 10s. firsts and £7 8s. to £7 8s. 6d. seconds.

The following are to-night's (June 21) prices of metals:—

	Copper.	£ s. d.	£ s. d.
Tough cake and ingot	...	45 5 0	45 15 0
Best selected	...	46 5 0	46 15 0
Electrolytic Copper	...	48 0 0	49 0 0
Sheets and sheathing	52 10 0
Flat bottoms	55 10 0
Chill bars
Good merchantable, spot, & 3 months respectively	...	42 12 6	43 0 0
Copper tubes, seamless	6 0 7½
Alloys.			
BRASS: Wire	...	0 5½	0 6 5½
" Tubes (solid drawn)	0 6 6
" Sheets	0 6 5½
PROOF BRONZE: Alloys II.	78 0 0
" III. or VII.	81 0 0
" XII.	83 0 0
" Volsen brand Al	72 0 0
DURO METAL	73 0 0
BULL'S METAL	55 0 0
Ferrobronze (Vivian's).			
Ingots	...	0 0 5½	...
Ordinary sheets, plates, bolts and bars	...	0 0 8½	...
Screw bolts and nuts	...	0 0 8	...
Pump rods, plain	...	0 0 7	...
" finished	...	0 0 10	...
DELTA METAL: No. 4 (per ton)
" Sheets and plates (per lb.)
" Bars, round, square, flat (per lb.)
" hexagon (per lb.)
Tin.			
English, ingots, f.o.b.	...	65 15 0	67 0 0
" bars	...	67 15 0	68 0 0
" refined	...	68 15 0	69 0 0
Straits, spot and 3 months respectively	...	62 17 0	63 5 0
Australian spot and three months respectively	...	62 12 0	64 0 0
Bancs (in Holland)	...	53 12 4	63 15 0
TIN PLATES: Charcoal, best quality	...	per box 0 14 0	8 16 6
" ordinary	...	0 11 0	8 13 0
" Coke, best quality	...	0 10 0	8 10 6
" ordinary	8 9 9

These prices of tinplates are f.o.b. at Swansea; at Liverpool 6d. per box more.

	Iron.	£ s. d.	£ s. d.
Pig, G.M.B., f.o.b., Clyde, spot	2 3 9½
" Scotch pig, No. 1 Gatherris	2 13 0
" " Coltness	2 13 0
" " Clyde	2 8 6
" " Govan	2 4 0
Bars, Welsh, f.o.b. Wales	4 17 6
Plates	6 0 0
Bars, Staffordshire, at works	4 17 6
Sheets	8 0 0
Plates	5 10 0
Hoops	4 13 6
Ship plates, Middlesbrough	10 0 0
BRICK: English spring	42 0 0
" cast	42 0 0
" Rails at works, according to section	...	3 10 0	4 15 0
Lead.			
Spanish or soft foreign	...	10 3 9	10 5 0
English pig, common	10 7 6
" L.B.	11 0 0
" sheet	11 10 0
" bar lead	11 10 0
" pipe	12 0 0
" red	12 15 0
" white	16 5 0
" patent shot	14 10 0
Spelter.			
Silesian ordinary brands	14 10 0
" special brands	...	14 12 2	14 25 0
English swansons	...	15 2 6	15 5 0
Sheet Zinc	...	18 0 0	18 2 6

	Antimony.	£ s. d.
Antimony	...	32 0 0

	Quicksilver.	£ s. d.
Flasks, 75 lbs. warrants	...	7 8 0
Ore, c.i.f., U.K. ports	...	per unit 0 11 0
1st quality, 50 per cent. and upwards	...	0 0 10
2nd " 47 per cent. to 50 per cent.	...	0 0 7½
3rd " 43 " 47 per cent.	...	0 0 9

	Aluminium.	£ s. d.
99-99½ per cent. (guaranteed 98 per cent. min.) in ingots (1 cwt. lots)	...	0 1 8
do do	...	0 1 8

	Nickel.	£ s. d.
99-99 per cent. guaranteed	...	0 1 3

A dividend of 10s. per share, less income-tax, is now payable to the holders of the founders' shares of the PARAGUAY DEVELOPMENT COMPANY (LIMITED).

"THE MINING JOURNAL" SHARE LIST.

ABBREVIATIONS AND REFERENCES.—The following are the significations of the abbreviations and references which occur in the Share List:—A, Antimony; Ar, Arsenic; B, Blende; Br, Borax; C, Copper; D, Diamond; G, Gold; I, Iron; L, Lead; M, Manganese; N, Nitrate; P, Phosphate; Q, Quicksilver; S, Silver; Sd, Silver-lead; Sul, Sulphur; T, Tin; and Z, Zinc. * In the "Amount of Share" column of British Mines signifies that the mine is conducted on "Cost Book" principles; 1 in the "Head Office" column of African Mines signifies that the address given is not that of the head office, but of a sub, or transfer office; and t, following the names of African Mines, signifies that they are subject to the Limited Liability Law of the South African Republic.

* The following is by far the most complete and comprehensive list of mines, in whose shares business is being currently transacted, published. Additions will be made from time to time as occasion requires. Every effort is made to ensure accuracy, and Secretaries of Companies, Share Dealers, and our readers generally, are cordially invited to co-operate with us to this end, by notifying us of any errors that may at any time occur. We desire it to be understood that, while our Share List will almost invariably be found correct, we do not hold ourselves responsible for any loss or inconvenience that may arise from possible inaccuracies.

BRITISH MINES.

Name.	Closing Price, June 21, 1895.	Closing Price, June 14, 1895.	Am't. of Share	Latest Dividend	Called up Per Share	Amount of Stock or No. of Shares Issued.	Situation of Mine.	Head Office.
Blue Hills .....CT	12/6 17/6	15/ 20/	£ s. d.	2/- May '91	£ s. d.	5,353	Cornwall	Camborne.
Botallack .....J	1 1/2	1 1/2	51 4 6	—	51 4 6	1,880	Cornwall	St. Just.
Carn Brea .....T	1 1/2	1 1/2	22 8 5	2/6 Dec. '93	22 8 5	6,000	Cornwall	Carn Brea.
Cook's Kitchen .....T	5/- 17/-	5/ 10/-	35 15 10	—	35 15 10	4,900	Cornwall	Camborne.
Devon Gwanton CA	par 3/4 pm.	par 3/4 pm.	0 12 6	—	0 12 6	25,000	Tavistock	8, Finsbury circus.
Devon Gt. Cons. CA	1 1/2	1 1/2	2 0 0	1/6 May '95	2 0 0	10,240	Devon	8, Finsbury circus.
Dolcoath .....T	42 44	46 48	9 12 6	12/6 Apr. '94	9 12 6	4,700	Cornwall	Camborne.
Drakewalls CTM	—	—	0 2 0	—	0 2 0	8,156	Cornwall	Dashwood House.
East Halkyn .....L	20/- 25/-	20/ 25/	0 12 6	—	0 12 6	12,000	Flintshire	67, Lord St. Liverpool.
East Pool .....AT	5 5 1/2	5 5 1/2	0 9 9	1/6 Sept. '94	0 9 9	5,400	Cornwall	Illogan.
Gawton .....CA	1 2	1 2	2 10 0	—	2 10 0	12,000	Devon	20, Great St. Helena.
Great Laxey .....L	1 2	1 2	4 0 0	5/- Apr. '92	4 0 0	15,000	Devon	Douglas, Isle of Man.
Green Hurl .....L	1/6	1/6	0 19 0	5/6 June '93	0 19 0	32,000	Cornwall	Newcastle.
Halkyn .....L	9 10	9 10	1 0 0	—	1 0 0	10,000	Flintshire	Chester.
Do. Dis. Mn. Drain	8 1/2 10 1/2	8 1/2 10 1/2	10 0 0	4/- Mar. '95	10 0 0	10,000	Flintshire	Corn Ex. Cmb. Chester.
Isle of Man .....L	3 1/2 4 1/2	3 1/2 4 1/2	5 0 0	1/6 Dec. '94	5 0 0	11,000	I. of Man	Chester.
Killfret .....T	7/6 12/6	7/6 12/6	5 11 6	1/6 Nov. '94	5 11 6	8,000	Cornwall	Truro.
Leadhill .....T	15/ 20/	15/ 20/	0 0 0	3/- Nov. '92	0 0 0	20,000	Flintshire	30, Finsbury circus.
Llanarmon .....T	par	par	0 15 0	—	0 15 0	21,990	Denbigh	8, Werburgh Chmbrs.
Llanarmon .....T	par	par	0 15 0	—	0 15 0	3,790	Flintshire	Chester.
Jevant .....CT	4 1/2 5	4 1/2 5	11 8 6	4/- Nov. '94	11 8 6	2,500	Cornwall	Penzance.
Lovell .....T	—	—	1 16 7	1/3 Nov. '91	1 16 7	7,165	Wendron	3, Gt. Queen-st., S.W.
Miners .....L	—	—	5 0 0	5/6 Mar. '90	5 0 0	9,000	Denbigh	Miners, N. Wales.
Newbnd & Tndie. LZ	3/6	3/6	0 18 0	5/6 Feb. '91	0 18 0	48,815	Nthumbid	Newcastle-on-Tyne.
New Cocks Ktn. CT	—	—	10 18 0	—	10 18 0	4,900	Cornwall	Camborne.
New Miners .....L	—	—	20,000	1/- Oct. '92	1 0 0	30,000	N. Wales	6, Queen-street-place.
North Hendre .....L	—	—	2 10 0	—	2 10 0	11,854	Flintshire	11, Nwgt. st., Chtr.
Phonix United CT	1/6 2/-	1/6 2/-	1 0 0	1/- Mar. '90	1 0 0	5,000	Cornwall	Billiter sq. buildings.
Polberro .....T	15/ 20/	15/ 20/	7 6 6	—	7 6 6	10,665	Cornwall	Lisard.
Rhosmor .....L	par	par	1 0 0	10 p.c. Sept. '91	1 0 0	1,030	Flintshire	Corn Ex. Cmb. Chester.
Rhosmor .....L	par	par	0 19 0	—	0 19 0	18,000	Flintshire	Corn Ex. Cmb. Chester.
So. Conduwrog TC	2/6 7/6	2/6 7/6	3 7 7 1/2	3/6 Apr. '93	3 7 7 1/2	6,123	Cornwall	20, Great St. Helena.
South Crofty TA	10/ 15/	10/ 15/	17 7 6	—	17 7 6	6,120	Cornwall	Pool, Cornwall.
S. Frances Untd. T	5/- 16/-	5/- 16/-	2 7 6	—	2 7 6	8,000	Cornwall	Redruth.
South Halkyn .....L	par	par	1 0 0	—	1 0 0	10,000	Flintshire	8, Werburgh Chmbrs.
Talacore .....T	par	par	0 20 0	—	0 20 0	29,000	Flintshire	81, Forgate st., Chtr.
Tincroft .....T	6 1/2 7	6 1/2 7	15 7 6	3/- Aug. '94	15 7 6	8,000	Cornwall	37, Walbrook.
Weardale .....L	8/9 7	8/9 7	1 10 0	1/3 Oct. '90	1 10 0	60,000	Durham	3, Lombard-court.
West Frances .....T	15/- 20/-	15/- 20/-	17 17 1/2	2/6 May '93	17 17 1/2	8,144	Cornwall	Camborne.
West Kitty .....T	5 1/2 6 1/2	5 1/2 6 1/2	1 2 0	2/- Dec. '94	1 2 0	6,000	Cornwall	37, Walbrook.
Wheel Agar .....TA	2/6 7/6	2/6 7/6	23 15 2	2/6 Aug. '95	23 15 2	6,000	Cornwall	Redruth.
Wheel Bassett .....TC	30/ 35/	30/ 35/	12 3 0	10/- Apr. '95	12 3 0	6,144	Cornwall	Redruth.
Wheel Grenville .....T	1/6 1 1/2	1/6 1 1/2	0 12 9	2/6 Nov. '94	0 12 9	10,000	Cornwall	110, Cannon-st., E.O.
Wheel Killybeg .....T	2 1/2 4 1/2	2 1/2 4 1/2	18 2 0	3/- Mar. '95	18 2 0	8,000	Cornwall	7, Union-court, E.O.
Wheel Kitty .....T	1 1/2 2 1/2	1 1/2 2 1/2	4 5 6	—	4 5 6	5,590	Cornwall	Truro.
Wheel Metal & F.T	1 1/2 2 1/2	1 1/2 2 1/2	0 13 9	—	0 13 9	10,794	Cornwall	14, Broad-street.

AUSTRALIAN AND NEW ZEALAND MINES.

Abbotts	11/3 13/9	11/3 15/9	1 0	—	0 17 6	67,000	N. Zealand	17, Old Broad st.
Achilles Gld Fld.	3/ 3/6	3/- 3/6	2/6	—	0 2 6	642,456	N. Zealand	Poultry.
Adnids Lamp G	18/9 11/3	15/9 16/3 xd	1 0	1/- May '95	0 2 6	100,000	N. S. Wales	4-5, Throg. Avenue.
Assoc. Gold Mines	12/6 13/	11/3 13/9	1 0	—	1 0 0	375,000	Coloquardie	20, Bucklebury.
Austin	17/6 22/6	17/6 22/6	1 0	—	1 0 0	50,000	Murchison	23, College hill, E.O.
Australasian	3/3 3/9	3/3 3/9	1 0	—	1 0 0	210,000	Queensland	6, Queen-st. place.
Australian	—	—	20 0	—	7 7 6	18,315	S. Austral.	15, Old Jewry Chmbrs.
Aus. Bro. Hill Cons.	2/9 3/3	2/6 3/3	1 0	—	1 0 0	637,138	N. S. Wales	Dashwood House.
Baker's Creek	15/ 20/	15/ 20/ xd	1 0	1/- May '95	0 17 6	100,000	N. S. Wales	Hillgrove, N. S. Wales.
Bayley's Reward G	9/6 10/6	10/ 11/	1 0	—	0 15 0	100,000	Coloquardie	8, W. H. B. B. B. B.
Big Blow	6/3 11/6	7/6 10/	1 0	—	0 15 0	100,000	Coloquardie	Winchester House.
Blackett's Claim G	6/3 11/6	7/6 10/	1 0	—	0 15 0	100,000	Coloquardie	Winchester House.
Blue Spur & G. G.	12/6 12/6	12/6 12/6	1 0	—	0 18 0	120,000	Queensland	6, Gt. St. Helena.
Bonnie Dundee	12/6 12/6	12/6 12/6	1 0	—	0 18 0	120,000	Queensland	3-5, Gracechurch-st.
Brilliant	12/6 12/6	12/6 12/6	1 0	—	0 18 0	120,000	Queensland	Charters Towers.
Brilliant Black G	12/6 12/6	12/6 12/6	1 0	—	0 18 0	120,000	Queensland	3, Gracechurch-st.
Brilliant St. Geo. G	12/6 12/6	12/6 12/6	1 0	—	0 18 0	120,000	Queensland	Charters Towers.
Brit. Brok. Hill S	12/6 12/6	12/6 12/6	1 0	—	0 18 0	120,000	Queensland	Dashwood Ho., E.O.
Brit. Brok. Hill S	12/6 12/6	12/6 12/6	1 0	—	0 18 0	120,000	Queensland	Dashwood Ho., E.O.
Broken Hill Prop.	2 2 1/2	2 2 1/2 xd	0 8 0	1/- July '95	0 8 0	980,000	N. S. Wales	Dashwood Ho., E.O.
Cashman Bril. ....G	3 1/2 4 1/2	3 1/2 4 1/2	1 0	—	1 0 0	67,000	Coloquardie	Winchester House.
Carrington	3 1/2 4 1/2	3 1/2 4 1/2	1 0	—	1 0 0	67,000	Coloquardie	Winchester House.
Con. G. M. of W. A.	17/6 20/	17/6 20/	1 0	—	0 12 6	90,000	W. Austral.	14, Hill st., Edinboro.
Coloquardie	17/6 20/	17/6 20/	1 0	—	0 12 6	90,000	W. Austral.	Winchester House.
Coloquardie (Shrius)	17/6 20/	17/6 20/	1 0	—	0 12 6	90,000	W. Austral.	Winchester House.
Craven's Cal. ....G	3/6 4/6	3/6 4/6	0 6 0	—	0 4 8	100,000	Coloquardie	30-1, St. Swithin's-lane.
Crown Bayle's G	3/6 4/6	3/6 4/6	0 6 0	—	0 4 8	100,000	Coloquardie	Bishopgate Ho. E.O.
Cumbrind (New) G	3/6 4/6	3/6 4/6	0 6 0	—	0 4 8	100,000	Coloquardie	Bishopgate Ho. E.O.
Day Dawn B. & W. G	10/6 11/6	10/6 11/6	1 0	—	1 0 0	498,400	Queensland	3-5, Gracechurch-st.
Day Dawn P. C. & G	5/6 6/6	5/6 6/6	1 0	—	1 0 0	490,000	Queensland	Winchester Ho., E.O.
Eaglehawk	1/6 1/6	1/6 1/6	1 0	—	0 19 9	120,000	Victoria	31, Lombard-street.
Empress Coal G	1/6 1/6	1/6 1/6	1 0	—	0 19 9	120,000	Victoria	31, Lombard-street.
Eng. & Aus. Cop. Cu	1/6 1/6	1/6 1/6	1 0	—	0 19 9	120,000	Victoria	31, Lombard-street.
Frederick the Gt G	—	—	1 0	—	1 0 0	125,000	Victoria	St. George's House.
Glenrock	1/1 1/4	1/3 1/8	1 0	—	1 0 0	225,000	N. Zealand	3-5, Queen-st. E.O.
Gold Estates	17/6 20/	18/9 21/3	1 0	—	0 10 0	80,000	Murchison	Winchester House.
Great Boulder	15 15 1/2	15 15 1/2	1 0	—	0 10 0	80,000	W. Austral.	42, Greenham House.
Great Coloquardie ..G	15 15 1/2	15 15 1/2	1 0	—	0 10 0	80,000	W. Austral.	42, Greenham House.
Great Fingall Rfd.	15 15 1/2	15 15 1/2	1 0	—	0 10 0	80,000	W. Austral.	42, Greenham House.
Great Fingall Rfd.	15 15 1/2	15 15 1/2	1 0	—	0 10 0	80,000	W. Austral.	42, Greenham House.
Golden Gate	15 15 1/2	15 15 1/2	1 0	—	0 10 0	80,000	W. Austral.	42, Greenham House.
Hampton Lands ..G	3 1/2 4 1/2	4 4 1/2	1 0	10/- Nov. '94	1 0 0	64,075	Coloquardie	1, Whittington Ave.
Hampton Plains ..G	3 1/2 4 1/2	4 4 1/2	1 0	—	0 4 0	350,000	Coloquardie	29, S. Swithin's lane.
Hampton Plains Ex	3 1/2 4 1/2	4 4 1/2	1 0	—	0 18 0	180,000	Coloquardie	Suffolk House, E.O.
Hannan's Brwn Hll	12/6 12/6	12/6 12/6	1 0	—	1 0 0	65,000	Coloquardie	Brook Street House.
Hauraki	12/6 12/6	12/6 12/6	1 0	—	0 18 0	250,000	Coromndi.	Dashwood Ho., E.O.
Kahonga	2/9 3/3	2/- 3/6	0 10 0	—	0 9 9	500,000	Queensland	70-71, Bishopgate st.
Kangaroo	4/ 5/	4/ 5/	1 0	—	1 0 0	88,275	N. Zealand	58, Coleman-street.
Kapanga	9/6 10/6	9/ 10/	1 0	—	0 19 6	250,000	N. Zealand	58, Coleman-street.
Kikivani	—	—	1 0	—	1 0 0	31,392	Queensland	32, Broad-st. Avenue.
Kinella	1 1 1/2	1 1 1/2	1 0	—	1 0 0	80,000	Murchison	Thromorton House.
Kurnall	1 1 1/2	1 1 1/2	1 0	—	1 0 0	80,000	Murchison	Thromorton House.
Lady Lech	3 1/2 4 1/2	3 1/2 4 1/2	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Lady Mary Amalg.	3 1/2 4 1/2	3 1/2 4 1/2	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Lindsey	3 1/2 4 1/2	3 1/2 4 1/2	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Londonderry	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
L. & W. Aust. Expl.	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Mainland Cons. G	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Mawson's Reward G	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Mills' Day Dawn G	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Mosman	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Mt. Leyburn	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Mount Morgan G	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Mount Zeehan S.L.	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
N. Australian G. F.	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
New Cons. G	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
North Coloquardie	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
N. Qld. M. Agency	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Queen's Bldy Un.	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Sam's With. of Nat.	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Scottish Australian	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Victoria Associatn.	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Victory	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Wahli	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Waratah	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Westworth Exten	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
Wentworth	12/6 12/6	12/6 12/6	1 0	—	0 10 0	70,000	Coloquardie	9, Tokenhouse Yard.
W. Argentine	1/- 1/8	1/- 1/8	1 0	—	0 19 6	150,000	N. Zealand	3-5, Queen-street.
W. Aust. G. Cons.	1 1/2 1 1/2	1 1/2 1 1/2	1 0	—	1 0 0	17,500	W. Austral.	32, Old Broad st., EO
W. Aust. Exploring	1 1/2 1 1/2	1 1/2 1 1/2	1 0	—	0 15 0	200,000	W. Austral.	34, Old Broad st., EO
W. Australian G.F.	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	0 15 0	200,000	W. Austral.	34, Old Broad st., EO
W. Aust. Mining	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	0 15 0	200,000	W. Austral.	34, Old Broad st., EO
W. Mallon	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	0 15 0	200,000	W. Austral.	34, Old Broad st., EO
White Feather	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	0 15 0	200,000	W. Austral.	34, Old Broad st., EO
Zapopan	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	0 15 0	200,000	W. Austral.	34, Old Broad st., EO
Zeehan Montana S	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	0 15 0	200,000	W. Austral.	34, Old Broad st., EO
Zeehan Montana S	3 1/2 3 1/2	3 1/2 3 1/2	1 0	—	0 15 0	200,000	W. Austral.	34, Old Broad st., EO

AFRICAN MINES (Continued)

mining business—and even, perhaps, of a mining boom—in the immediate future, it may be well to call the attention of those of our readers who are interested in the promotion and flotation of new companies to the impending sale by the well-known firm Messrs. Loyd Knox and Grimshaw, by private treaty, of some 16 gold-bearing estates in these countries, ranging in extent from 4200 acres to 24,000 acres. There are also three estates for disposal situated in the Transvaal. According to an advertisement which appears on another page, it will be seen that “the Rhodesian properties have been pegged out, surveyed and registered, and title deeds lodged in a London bank. All are gold-bearing, and reported upon by mining engineers of eminence. The Transvaal Estates were until recently the property of a former Governor of Natal. The title and all surroundings are in form, and a large proportion of the purchase money may remain outstanding on the security of the premises.”

THE BALAGHAT MYSORE MINES, LIMITED.

REPORT OF THE DIRECTORS.

THIS company was registered on March 1, 1894, and the whole of the 159,945 shares have since been allotted in accordance with the terms of the scheme for reconstruction. The necessary contracts protecting the issue of the shares were duly filed with the Registrar of Joint Stock Companies. During the year the quartz stamped amounted to 4205 tons, which produced 5671 ounces of bar gold, or an average of 1 ounce 6 dwts. 23 grains per ton. It should be pointed out, however, that the quantity of quartz represents only about 36 per cent. of the stuff passed through the mill, the balance being composed of country rock unavoidably broken down in extracting the narrow lode. Full particulars of the returns will be found in the tabulated statement.

The revenue account shows that the value of the gold produced was £21,909 13s. 2d., and the receipts for transfer fees, &c., amounted to £87 16s. 3d., which together make the total income £21,997 9s. 5d. The revenue expenditure in India and England for the year amounted to £23,048 11s. 7d., and the royalty on gold produced was £1079 9s. 6d., together £24,128 1s. 1d.; a loss of £2130 11s. 8d. was therefore made on the year's working. Adding to this loss the amount written off for the depreciation of buildings, machinery, plant, &c., £1525 4s. 1d., and the debenture interest for the 12 months—viz., £3462 14s. 10d.—the total debit balance for the year is £27118 10s. 7d. The capital expenditure for the year amounted to £12,806 12s. 3d., of which the sum of £3694 11s. 11d. was upon machinery, plant, and buildings, £1726 12s. upon development of the old section, and £7385 8s. 4d. in developing the new section at Tennant's shaft. A large amount of work was accomplished at the mines during the year, full particulars of which are given in the superintendent's report.

Owing to the heavy and dangerous state of the ground, accompanied by many breakages of the pumping machinery, the explorations at Ogle's shaft were considerably retarded, and the bottom of the mine was frequently flooded with water. Nevertheless, in spite of the many difficulties, a great deal of work was done in sinking the shaft and driving levels from it until (in November last) the machinery completely broke down, and it became a question of suspending operations in that section of the property for a time, or supplying a new and larger pumping engine. As explained to the shareholders in a circular issued in December last, the directors decided, after consulting Mr. Edgar Taylor (one of the managers), who was at that time on the Colar field, that they were not justified in sanctioning the heavy expenditure necessary for providing a new engine to unwater this part of the mine, and consequently instructions were given to discontinue operations there at least until the company is in a better position to supply the machinery. The work in connection with Tennant's section has been carried on regularly during the year. The shaft was sunk 200 feet, making a total depth of 497 feet. The lode for the first 100 feet below the 285 feet level produced quartz, varying in width from 2 feet 6 inches to over 4 feet, and in assay value from 5 dwts 14 grains to 1 ounce 1 dwt. 12 grains per ton; after which the shaft evidently passed out of the shoot as the lode was not so productive.

The 420 feet level north of Tennant's was driven 163 feet, and for 120 feet of that distance the lode yielded quartz, varying from 6 inches to 3 feet in width, assaying from 3 dwts. 3 grains to 2 ounces 6 dwts. 12 grains per ton. Recent reports state that the lode has varied in width from 3 feet to 6 feet, and in assay value from 3 dwts. to 10 dwts. per ton. The end is now approaching an east and west dyke, and it is hoped, when the lode is intersected on the other side, the quartz will be found to have improved in value, as has been the experience in some of the other mines on the Colar Field. The 500 feet level north, mentioned by the superintendent in his report, has since been commenced, and the latest report to hand, dated May 28, states that it has a promising appearance, and produces quartz from 6 inches to 8 inches wide, assaying 1 ounce 2 dwts. 9 grains per ton. The prospects at this section of the property are considered to be encouraging, and the development is being carried on energetically. The ore shoots up to the present have been short, especially the richer ones, consequently only a comparatively small quantity of quartz has been available for extraction. Hopes are entertained that as the 600 feet level (which should soon be started) and the 500 feet level referred to above, are extended north, the lode will improve in size and yield.

Since the close of last year an important discovery has been made by the Comorandel Company very near to the Balaghat southern boundary. The lode at the point of intersection was 5 feet wide, assaying 2 ounces 5 dwts. per ton, and in the ordinary course of events this same lode should pass through our property to the east of the old Balaghat lode. In order to prove this, a crosscut east was started in February last from the 270 south of Ogle's shaft, and at 78 feet from the level, what appeared to be a branch of quartz 6 inches wide, was met with. Levels north and south have been commenced on it, and according to the report dated May 28, it had increased in width to about 3 feet 6 inches, and is stated to present a more kindly appearance. If the indications remain favourable, the south end towards the Comorandel property will be pushed forward with all speed to prove the intervening ground. In consequence of the suspension of operations at Ogle's and Haines's shafts the mills have been stopped since March, as the quartz obtained from Tennant's section is not sufficient to keep them employed. They will be set to work again immediately there is enough quartz available to warrant it. A trial recently made upon 30 tons of the Balaghat tailings by the cyanide process was satisfactory, consequently the directors have decided to send out a plant at once. They had hoped to have been able to come to a decision in regard to this matter long before, but the trial of the process at the Mysore Mine took much longer than had been anticipated.

The superintendent estimates the quantity of tailings available at 50,000 tons, and it is believed that a considerable profit will result from the treatment of same. With the capital still in hand, and the profit to be derived from the treatment of tailings, it is anticipated that the present scale of explorations can be carried on for a considerable time. The directors desire to say, in conclusion, that they are disappointed at not being able to lay before the shareholders a more favourable statement, but they are hopeful that the developments now in progress will lead to more satisfactory results. The retiring director on this occasion is the Right Honourable Lord Ribblesdale, who being eligible, offers himself for re-election. The auditors, Messrs. James and Edwards, also retire, but offer themselves for re-election.

— The transfer-books of the DE LAMAR MINING COMPANY (LIMITED) will be closed from June 18th to July 1, inclusive.

MINING IN CORNWALL

AND DEVON:

NOTES ON MINING IN THE WEST.

(BY OUR SPECIAL CORRESPONDENT).

THE joint meeting of the Wheal Agar and East Pool executives does not seem to have brought the desired settlement between the two mines very much nearer. Some points have, however, been cleared up, and there ought now not to be any very great difficulty in arriving at a basis of agreement which will prove satisfactory to all parties. If the negotiations should fail now, it will be impossible to avoid coming to the conclusion that some, at least, of the parties concerned are not entirely sincere in the avowed desire to accommodate matters. The proposals made by East Pool were, briefly stated, a joint liability for water charges, an out-and-out purchase of Wheal Agar for £2500, or an allotment of 600 East Pool shares as consideration for the mines and the plant thereon.

THE Agar shareholders preferred amalgamation, and suggested the floating of a new company in upwards of 12,000 shares to work both mines, to be made up of the existing 6400 East Pool shares and the effective 4117 Wheal Agar shares, the remainder to be allotted *pro rata* to existing shareholders at 25 10s. per share. This practically means that the Wheal Agar people estimate the value of their own mine at £22,500—a not particularly modest figure for a concern which declares itself too poor to pump its own water. The general opinion is that the proposals on both sides are rather wide of the mark, those made on behalf of Wheal Agar particularly so, and it is thought that as there is a disposition on either side to come to terms the whole matter should be left in the hands of arbitrators.

If it is preferred that the mines should be worked separately, the first suggestion put forward by East Pool is regarded with some favour—viz., the arrangement of a joint liability for water charges. It is to be hoped that before the end of next month, when the *modus vivendi* which was the outcome of the miners' demonstration expires, some definite understanding will have been arrived at, as it can hardly be expected that Carn Brea and Tincroft will continue to contribute anything. Their contributions in the first place were made rather as an act of neighbourly good-will, than from necessity or moral obligation.

WHEAL BASSETT accounts will be closed at the end of this month; and, in spite of the serious hindrances encountered in the early part of the quarter, we understand that no loss will be shown, even if there is not a small profit. With a very slight improvement in the price of tin, Wheal Basset would be in a position to give to the patient and persevering shareholders an instalment of that reward which they so richly deserve.

THE accounts presented at Levant meeting on Tuesday showed a small loss of less than £200, but as there is still a balance in hand no call was necessary. The loss was really more apparent than real, as only half the quarter's copper had been credited. It is the large production of copper which is the salvation of Levant. Nearly 700 tons were sold during the last 18 weeks, so that this famous mine is now turning out more copper than all the other mines in Cornwall and Devon. Arsenic is also raised in considerable quantities, and the returns of tin keep up fairly well. St. Just has now only this one mine, the last of a once large and flourishing group. It is not pleasant to think of what would happen in the parish if Levant were overtaken by the fate which has recently befallen Botallack, but though some of the shareholders at Tuesday's meeting were pessimistic enough to predict such a catastrophe, there is happily no reason for supposing their gloomy forebodings to be in any sense justified by the present position of the future prospects of the mine. The subject of the new lease was referred to, but nothing of importance transpired with regard to it. There certainly seems some foundation for the complaint that there has been undue delay.

THE confirmatory meeting of Dolcoath shareholders was held last Monday, and the sparse attendance may be taken as a proof that confidence is felt in the directors. The necessary resolutions were passed without opposition, and the proceedings were of a formal character. Reports from the mine state that the bottom is looking well, and when the new whim is put into position, it is hoped they will be able to meet costs if the bottom ground turns out in accordance with the value of the ends and winzes.

It has been rumoured that there is a chance of a good turn in Carn Brea, consequent upon an improvement in the 322 end east of Highburrow East. We have received no confirmation of this, however, on going to press.

Nundydroog Company.

At a meeting of directors, held yesterday (Friday) it was resolved—"That an interim dividend (free of income-tax) of 1s. 6d. per share be, and is hereby declared, payable on the 25th day of July, 1895, to the shareholders on the books of the company on the 29th instant, and that the transfer-books be closed during the said 29th instant."

COPPER ORES.

Sampled June 5, and sold at Tab's Hotel, Redruth, June 20.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Levant	107	£3 14 6	Devon Great Consols	75	£1 15 0
ditto	108	3 16 6	Bawden's Ore	60	1 11 0
ditto	109	3 16 6	ditto	29	1 7 0
ditto	104	3 14 6	ditto	29	1 7 0
ditto	103	3 12 6	East Pool	48	0 14 6
ditto	102	3 12 6	ditto	18½	0 16 6
ditto	4	22 7 6	ditto	18½	0 16 6
ditto	4	22 7 6	Tincroft	60	2 7 6
Devon Great Consols	92	1 12 0	ditto	20	5 13 6
ditto	92	1 14 0			

TOTAL PRODUCE.

Mines.	Tons.	Amount.	Mines.	Tons.	Amount.
Levant	625	£2515 3 6	East Pool	85	£10 10 0
Devon Great Cons.	280	438 9 0	Tincroft	70	199 5 0
Bawden's Ore	118	171 6 0			

Average standard	£57 8 0	Average produce	9%
Average price per ton	£2 18 0	Quantity of ore	1168
Quantity of ore	1168	Quantity of fine copper	115 tons 1 cwt.
Amount of money	£2392 6 0		

LAST SALE.

Average standard	£57 17 0	Average produce	9%
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COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
Vivian and Sons	231½	£283 11 3
F. Grenfell and Sons	320½	655 3 0
Neville, Druse, and Co.	193	370 2 0
Williams, Foster, and Co.	269	748 0 0
Elliot's Metal Co.	133	426 11 0
Charles Lambert and Co.	131	268 11 0
Total	1168	£2392 6 0

The next sale will be held at Redruth on August 27.

CORRESPONDENCE.

We wish it to be understood that we do not hold ourselves responsible for, and do not necessarily endorse, the opinions of correspondents. All communications must be accompanied by the names and addresses of the senders, though these need not necessarily be published.

COST OF PROVING A GOLD MINE.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—It is satisfactory to note Mr. J. A. King's experiences when confirming my assertions that £35,000 to £40,000 is enough to prove and, practically speaking, to spend upon or pay for any gold mine before the public are called upon to subscribe one farthing. It can then be readily determined whether it will become a permanently paying venture, and it is needless to add that anyone who attempts to prove the contrary has a very difficult task before him.

As Mr. King very pertinently puts it, many mining schemes are placed before the public which are never intended to be worked, and, indeed, such can be sifted out by the score.

I had occasion the other day to examine a name-board in one of our busy thoroughfares, and though the names thereon have no bearing on the present issue, the coincidence presented to my mind the condition of things at this season. On the top of the board was an estate and mining company, then a gold company, after which came a trust and agency company, then a mortgage and agency company, followed up by a firm of auctioneers and finally a solicitor. It almost looked like the ghastly joke of a company promoter, and I could there and then vividly conjure up the chucking over the first gold find, and the final issue at the solicitors' office, after being knocked down to the highest bidder.

Such now is the position of a large section—first, the harvest of the promoter, and finally the general fleecing of the gullible public.

Some of our colonial experts have aired their opinions considerably, and it is strange, yet nevertheless true, that not only individuals but companies, whose experiences were acquired elsewhere, have veered round to the successful districts.

It is absurd that anyone, whose only experience was acquired in Northern Queensland, should come here and pose about his West Australian experience, or that a mining company in Patagonia should be recognised as an authority on the Rand.

Such, however, is the effrontery of the promoter, exploration or mining agency, that they would have us believe ubiquitous knowledge and scientific skill were born of their profession—a doubtful one at best.

June 20.

SCRUTATOR.

COPPER MINING IN NORWAY.

TO THE EDITOR OF "THE MINING JOURNAL."

SIR,—For some time past negotiations have been going on for the acquisition of what is termed by mining experts a second Rio Tinto Copper and Sulphur Mines, and an option has now been granted. The mines are situated about 90 miles from the shipping port, and are now connected (with the exception of 12 miles) by the Government railway, so that transit is easy and inexpensive. Owing to the want of this railway the mines have not been vigorously worked, but only satisfactorily developed on the dip of the lode 100 fathoms, showing it to be 12 feet wide from top of shaft to the bottom, and worth 50 tons of ore per fathom for a distance along the lode of two miles, and containing millions of tons of ore in reserve. The crude ore assays 3 per cent. copper, 48 per cent. sulphur, and 45 per cent. iron, and is in fact one of the largest copper and sulphur mines in the world. Now that the railway is completed within a distance of 12 miles from the mines, they will be vigorously worked, and thousands of tons of ore shipped to Swansea, and other smelting centres. For this purpose a company is being formed with a nominal capital of £100,000, of which £50,000 is reserved to erect an aerial tramway the 12 miles, and for working capital. It is estimated that the present reserves of ore will last 25 years, during which time a profit of 35 per cent. per annum will be made on the nominal capital. Should any of your readers be interested, or wishful to invest in these mines, I shall be pleased to render them all the assistance necessary.—Yours faithfully,

JOHN L. M. FRASER,
162, Ebury-street, London. Consulting Mining Expert.

BIRMINGHAM IRON TRADE MEETING.—The fine weather and the holidays, combined with the near approach of the half-year's end, were probably responsible for the diminished attendance and quiet demand at the weekly meeting. Ironmasters are fairly well employed still on old orders, booked before Whitsuntide, and the mills in many cases are running full time, but new orders arrive slowly, and production will have to be curtailed unless business improves. Prices may be reported steady, though in a few instances Midland pig and common bars have slightly given way. In the galvanised sheet branch business continues good, and prices are firm. There is not much new business in the pig market, but prices are fairly steady at 52s. 6d. to 55s. for Staffordshire all-mine, and 40s. for part-mine. Cinder is 35s., Northamptonshire forge is 38s. to 39s., North Staffordshire 40s. 6d. to 42s., Derbyshire 39s. to 40s., Lincolnshire 41s. to 42s., and hematite 51s. to 52s. In the finished iron branch there is no change in marked bars at £7, merchant iron is £5 10s., and common bars £5 5s. to £5 7s. 6d. Sheets are £6 10s. for doubles, and £6 17s. 6d. to £7 for lattens. Plates are £6 10s., angles £5 12s. 6d., stamping plates £7 10s., and best thin sheets £10. Hoop and thin strip are £6 5s., nail rod is £6 10s., and tube strip £5 5s. Steel is steady at £4 to £4 2s. 6d. for Bessemer billets and blooms, £5 5s. for angles, £5 10s. for tank plates, £5 5s. to £5 7s. 6d. for girders, and £5 15s. for bars. Galvanised iron is still quoted £9 17s. 6d. to £10 in Liverpool for 24 gauge.—*Birmingham Daily Post.*

THE SOCIETY OF ARTS.—The Council give notice that the 141st annual general meeting for the purpose of receiving the council's report and the treasurer's statement of receipts, payments, and expenditure during the past year, and also for the election of officers and new members, will be held in accordance with the bye-laws on Wednesday, June 26, at 4 p.m.

THE MEYER AND CHARLTON have declared a dividend of 25 per cent. for the six months ending June 30. The dividend warrants will be issued from the head office, Johannesburg, immediately upon receipt of the European transfer lists up to June 30.

THE CONSOLIDATED GOLD FIELDS OF SOUTH AFRICA (LIMITED) notify that the warrants for the interim dividend of 50 per cent. per annum on the ordinary shares of the company have been posted. Coupon No. 2 of the ordinary shares will be paid at the company's bankers, the London Joint Stock Bank (Limited), 5, Princes-street, E.C., and at the company's agents in Paris and Berlin; and coupon No. 2 of the 5½ per cent. first debentures, due July 1 next, will be paid on and after that date at the company's bankers.

THE RAND CONGLOMERATE.

A Paper by M. DRAPER.

At the general monthly meeting of the Geological Society of South Africa last month, Mr. D. DRAPER, the Secretary of the Society, read a paper on the above subject as follows:—

It is a difficult matter to deal with so large a subject as I have taken in hand this evening within the limited time at my disposal. The question in composing a communication on so vast a matter is not so much what to say as what to omit. Every detail regarding the position, structure, and mineral constitution of a rock system is of the greatest interest, and would well repay critical examination and study. But time will not allow, and, consequently, I intend in the following pages to lay before you the leading features only of the primary systems of South Africa, leaving the details to be worked out at some future date.

Location of the Primary Rocks.

If you will kindly glance at the rough map of South Africa, which I have prepared for this occasion, you will notice that the coloured portion extends in a narrow strip roughly parallel to the coast line, from the mouth of the St. John's river, through the north-eastern portion of Pondoland, Natal Zululand, and Swaziland, to the 26° parallel of south latitude, from which point it stretches northward beyond the Limpopo and westward across the Continent to the shores of the Atlantic Ocean, occupying the greater portion of the Transvaal, the whole of British Bechuanaland, the southern portion of the Kalahari Desert, and then extends south into the Cape Colony, through the western districts of Namaqualand, Clanwilliam, Tolbush, Malmesbury, Wellington, and Wynberg, and the southern districts of Caledon, Swellendam, Riversdale, Oudtshoorn, George, Humansdorp, Uitenhage, Alexandria, and Albany, to the mouth of the Koonap river. This coloured portion of the map represents the geographical position of the primary systems and the crystalline rocks upon which they were deposited. With the exception of a short distance between the Koonap and St. John's rivers, they completely surround the secondary systems, which are situated in that portion of the map left uncoloured. Unfortunately for the student of South African geology, no definite arrangement or classification of the rocks has hitherto been adopted by those who have written upon the subject, and we find that a variety of names have been bestowed upon each series, and great confusion has consequently resulted. I have, therefore, contributed a table showing the order of succession of the primary systems as adopted by the most experienced geologists who have visited this country, and I hope that the table will be of assistance to you in following me through the descriptions of the various periods which it embraces.

The Clay Slate Series.

In South Africa, as in other parts of the world, the nethermost rock is granite, followed by gneiss and crystalline schists; and upon this floor or basement rock the stratified systems were deposited. Leaving the basement rocks for some future paper, I will commence with the lowest of the primary systems, named by the pioneer of South African geology, the late Mr. Andrew Geddes Bain, who described it, in a communication to the Geological Society in 1854, "The Clay Slate Series," in the following words (see Transactions Geol. Soc. vol. VII. sec. 2, 1854). This formation contains rocks of various kinds and presents a great diversity of aspects. It is of a bluish-black colour, but is devoid of true slaty cleavage. In many parts it passes into mica slate. It never rises to any great height, but is generally found to constitute valleys. The laminae or strata, when visible, are always at high angles, frequently vertical and contorted, and often entirely overturned. "It is quite impossible to calculate the thickness of the clay slate. I have made extensive excavations in these rocks, but never saw the least sign of a fossil in them. Hence I conclude they are non-fossiliferous." What Bain stated in 1854 has not yet been contradicted. Fossils have not been discovered in the clay slates, and, consequently, it is impossible to fix their age as compared with the systems of European geology. Messrs. E. J. Dunn and A. Schenck, writing in 1887 and 1888, divided the clay slate series of Bain into two parts, naming the lower "The Malmesbury or Namaqualand Schists," and the upper "The Lydenburg or Swazie Schists," the former agreeing with the clay slate as found in the neighbourhood of Capetown, and the latter names adopted to suit the variety of schists, shales, and quartzites, found so well developed in the district of Lydenburg, especially in the Barberton or De Kaap country and in Swaziland, where, though the actual clay slate is varied with quartzites and schists, the great disturbance of this system is as prominent a feature as it is at the Cape, and, in fact, wherever it has been discovered in South Africa, whether in the Cape Colony, Natal, or the Transvaal.

The Beds of the Rand.

What interests us most, however, in the great gold field, are the rocks in the immediate neighbourhood, and, so far as I have been able to determine, that portion of the Witwatersrand series which lies between Orange Grove and the northern boundary of Jeppe's Township is composed of Malmesbury Beds, the upper portion of the series, e.g., the Lydenburg beds being absent. Here, the Malmesbury beds consist of soft sandstones overlaid by light coloured quartzites, interstratified with beds of grey slaty shales, weathering to deep red and brown, the shales predominating in thickness over the quartzites. A peculiar bed of highly contorted slate, containing thin bands of deep red jasper and abundance of titaniferous iron, is continuous with this series over such a great extent of country that it is used as an index to the overlying conglomerate series. Quartz veins are rare in this series here, and basic igneous rocks, whether occurring in dykes or sheets, are by no means plentiful. As in other parts of the country, the Malmesbury beds here are tilted to a high angle, frequently perpendicular, and occasionally overthrown, as at the Cape. The Lydenburg or Swazi beds are well developed in those portions of the country from which they are named. They are composed of shales, slates, and quartzites, grey or light coloured, very much disturbed and tilted, and they contain a great number of quartz veins, generally auriferous. Igneous rocks are plentiful in parts of the country, especially in the Barberton district. Great beds, 50 to 60 feet thick, of water-worn pebbles occur in the series, especially in the Makonjwa Range, Barberton, but they are quite distinct from the conglomerates of this part of the country, consisting of flat oval-shaped pieces of slate principally, and with very few quartz pebbles. They contain no gold.

The Conglomerates.

Upon the upturned edges of the Malmesbury and Lydenburg Beds a series of sandstone and slate, containing numerous beds of conglomerate interstratified, was deposited unconformably—that is to say, that after the lower series had been tilted and placed in its present position the Table Mountain sandstone, as the next series is called, was laid down upon its edges. This is shown in the section which I have constructed to illus-

trate this paper. (See section No. 1.) The Table Mountain Sandstone series is the best known to us of all the systems in South Africa, from its auriferous conglomerates, which have yielded such great treasures that the miner has opened up here a gold field unequalled in the history of the mining world. As this series is of great extent and is found in detached patches all over the area occupied by the Primary Systems, I shall describe that portion lying in the neighbourhood of Capetown, as typical of this series in the coast area, and then proceed to notice the leading features in our own neighbourhood. Bain named the series from its extensive development on Table mountain, Capetown, where it forms the great frowning crags which crown the summit of that noble mountain, the Table mountain sandstone series, and he described it as "consisting of unfossiliferous sandstone and conglomerate, forming the summit of most of the extensive and lofty ranges of the western and southern portions of Cape Colony. At Pikeners Kloof and Rhinoster Hoek the whole mountain seems to be one mass of conglomerate, many of the imbedded stones being larger than a man's fist. They are principally composed of clay, slate, and quartz, and they decrease in numbers in an easterly direction. No antecedent quartzose rock exists in South Africa at present. Hence we must conclude that the parent of those numerous pebbles and conglomerates now lies buried in the depths of the Indian or Atlantic Ocean. The thickness of the formation it is difficult to ascertain, but, so far as I have been able to estimate it, it cannot be less than from 10,000 to 12,000 feet thick." Thus far Bain. Since his time this series has been found to continue along the coast line in detached patches forming the hill ranges; principally along the south and east coast in Natal and Zululand, in Swaziland and Lydenburg, and northward in the Zoutpansberg and Waterberg district, and Zeerust, and wherever it is found it contains gold in greater or less quantities. But in the district of Heidelberg, where we are now resident, the conglomerate beds, as we all are aware, have proved richer in that valuable metal than in any other part of the country, and it is with this portion of the country that I especially wish to treat.

The "Basin" Theory Wrong.

The earlier gold-seekers passed the pebble beds which they found out-cropping on the surface with contempt, never dreaming that they were travelling over a rich gold field, and the discovery was left to chance. Since the earliest mining on these fields, theories regarding the continuity of the conglomerates have been advanced by those who pretended to be experts in gold finding, and one of the first was that of a gentleman from Australia, who laid a wager that the conglomerate beds would cease at a limited depth. This was proved to be fallacious, and now we have gentlemen who are prepared to step forward and prove that there is no limit to the conglomerate beds in depth. Others, again, wish to convince the world that the conglomerates have been deposited in a basin, and that they will be found lying horizontally in that portion of the country between the Witwatersrand and the Vaal River, where they are found dipping northward. I have drawn a few sections to illustrate the differences in the structure that would be found to occur under the theories above mentioned.

Section No. 2 shows what would have occurred if the conglomerate of this country had been deposited in a basin within the older rocks. The various layers of sandstone and shale with their inter-bedded conglomerates, would have been found lying horizontal and unconformable to the rocks in the hollow of which they were deposited. This theory may be dismissed without further comment.

Section No. 3 shows what would have occurred if the conglomerates and accompanying rocks had been disturbed and tilted in a basin after they had been deposited. In this case you will notice that the beds in the central portion of the basin would be found lying horizontal and within easy reach of the miner's explorations.

How the Beds were Tilted.

This is the favourite thing at present; and I will now proceed to demonstrate that there is as little foundation for it as there is for the previously-mentioned theory. That sedimentary deposits are all approximately horizontal when laid down, is certain, and it follows that when the sandstones and conglomerates were being deposited in the bed of the ocean, wherein they were formed, the various strata assumed a comparatively horizontal position. These beds were subsequently disturbed and tilted to a high angle in various parts, and especially in this neighbourhood. But the tilting process was not confined to the outer edges of the formation as we now see it. On the contrary, the tracts which took place, and which were subsequently filled with intrusive granite, were in the main body of the bed and not along its edges, and though portions of the bed were tilted northward from the Vredesort granite, other portions were tilted southward and northward from the granite mass lying between here and Pretoria, and consequently two great anticlines were formed, of which the granite at Vredesort and that at the Halfway House represent the axes. While this great earth movement was in progress, the centre portion of the series—now lying between here and the Vaal river—sank in proportion to the height it was tilted at the granite, and consequently all the strata lying between the two granitic intrusions is tilted towards a common centre, which represents the synclinal axis, and northward from the granite to beyond Pretoria. During this great earth movement a fault occurred by which the northern portion of the anticline was lowered, and the conglomerate beds were sunk too deep for exploitation. The section No. 4 will give you an idea of what has occurred.

The Discoveries.

I do not lay claim to be the discoverer of this phenomena. Dr. Adolf Schenck, one of our honorary members, and a gentleman who has done a great deal towards South African geology, mentioned this circumstance in 1886, and Dr. Molengraaff in his pamphlet on South African geology, published in 1890, also describes the occurrence of the great anticline between the Johannesburg Rand and the Magaliesberg. Mr. Penning noticed this position of the rocks, and mentions the occurrence of the great fault on the northern boundary of the granite beyond the Halfway House. The Basin Theory, as it is generally called here, is a fallacy entirely, and cannot be explained by any of the known laws of the action of water in depositing sedimentary matter or the effect of earth movements caused by igneous intrusion and crumpling of the earth's surface. Time will not allow me to dwell on this most interesting portion of my subject any longer, and I will now proceed to glance at the probable source of the beds of rounded pebbles which constitute the renowned Banket reefs?

Whence came the Conglomerates?

Whence could this great succession of pebble beds have been derived? Bain says there is no rock that he knows of in this country that would have yielded such a vast quantity of quartz pebbles, and I must agree with him. I have not been able to discover in any of the older series the disintegration of which would have yielded quartz pebbles in sufficient quantities. The underlying Malmesbury beds, upon which the conglomerates here rest, would not produce quartz pebbles. Quartz is rare in the series. Shales, slates, and quartzites are plentiful, but no quartz to speak of. The Lydenburg beds contain quartz veins and pockets in greater quantity, and appear to be more like the

original banket-forming rock. They are also auriferous to a larger extent than the Malmesbury beds. One feature is very noticeable in the composition of the pebble beds, and that is, that they contain no trace of igneous rocks or granite amongst the pebbles of which they are formed. Evidently the series where the pebbles derive their origin have not suffered from igneous intrusions, either granitic or basic. The fact has been noticed by all those who have studied the construction of our banket beds.

Conglomerates Elsewhere.

Conglomerates similar to our own are by no means rare in other parts of the world. South America and Nova Scotia have yielded conglomerates bearing gold, and the Old Red Sandstone of Scotland, as described by Geikie, is evidently very similar to our conglomerate series. This is what Geikie says in his "Text-book of Geology"—second edition, page 706:—"Under the name of Old Red Sandstone is comprised a vast and still imperfectly described series of red sandstone, shales, and conglomerates. Red sandstone is the predominant rock. The colour varies from a light brick red to a deep chocolate brown, and occasionally passes into green, yellow, or mottled tints. The sandstones are, for the most part, granular siliceous rock, wherein the component grains of clear quartz are held together by a crust of earthy ferric oxide. Scattered pebbles of quartz and of various crystalline rocks are frequently noticeable among the sandstones, and this character affords a passage into conglomerates. The latter forms a conspicuous feature in many Old Red Sandstone districts. It varies from a mere thin bed up to successive massive beds, having a united thickness of several thousand feet. For the most part the stones in the conglomerates are well rounded, sometimes, indeed, remarkably so." The above description would answer for our part of the country, and, in fact, for the whole conglomerate series throughout South Africa, and I have no doubt in my own mind that we shall hear of some of our retired prospectors, when enjoying a tour through the conglomerate districts of Scotland, doing a little quiet panning, to see if there is gold in the Scottish banket.

Whence Came the Gold?

How came the gold into the conglomerate beds? This is the next great question which our society will, no doubt, discuss at some future date. I am not sufficiently up in chemistry or mineralogy to go into the matter; but I have always inclined towards the theory that the gold was precipitated from a solution of chloride of gold contained in the waters during the time of the deposition of the conglomerates. I leave the matter, however, in better hands, and I have no doubt that our worthy vice-President—Mr. A. R. Sawyer—will at some early date enlighten us on this subject, upon which we know he has spent a great deal of time and study.

The Overlying Series.

I will now proceed to describe the next series overlying the Table Mountain sandstone or conglomerate series. Again, I must draw upon the old South African pioneer, Mr. Andrew Geddes Bain, for the details of the Bokkeveld beds; for such is the name bestowed upon this series, owing to its great development in the Bokkeveld mountains, in the district of Ceres, Cape Colony. "The Bokkeveld beds rest conformably upon the coarse, gritty sandstones of the Table mountain sandstone series. They consist principally of soft micaceous deposits of various colours, abounding in fossil trilobites and other Devonian forms of extinct marine mollusca. In the upper portion of the series the rocks are composed of a greyish sandstone containing numerous casts of spirifers, which form a fancied resemblance to the butterfly the Boers call "Schrelopers." Overlying this is found a compact blue argillaceous schist, abounding in trilobites of a large size, conularia brachiopods, and other molluscs. This is overlaid by a deposit, resembling the lowest micaceous beds, but containing a much greater variety of molluscs, as well as many specimens of heads, bodies, and tails of a large species of Homoloniotes Herschelli. They are remarkable trilobites, with a hook-like beak. Hence I promiscuously named them the "Hawks Bill." I have not been able to find in the writings of any of the later geologists anything more than a very superficial description of this most important system in South African geology; in fact, I may say the most important system yet discovered, as it marks definitely one geological horizon, and assigns the position of this series with regard to the geology of Europe and America. Fossils, as you are aware, are the only reliable evidence of the age of a system, and here in the remarkably abundant marine fauna discovered by Bain, and classified by Messrs. Salter and Sharpe, we have at last some reliable data upon which to base our calculations. After fully describing the fossils forwarded by Mr. Bain, those gentlemen conclude as follows:—"It will be seen by the paleontological reader that, of 27 species described, all, with two exceptions, belong to genera known in Devonian strata, some of them to forms of those genera peculiarly characteristic of such rocks. This is especially to be noted in the case of the broad-winged spinifer—the spinosa homoloniotes—and the fan-tailed phacops. . . . In no other formation can such an association of the above forms with species of cucullella, bellerophon, conularia, chonetes, and strophomena be discovered, and hence in the absence of any true Silurian species, or even of any purely Silurian genus, we are compelled to regard the formation as Devonian." This series is, so far as I am aware, not yet identified in the Transvaal, and, in fact, fossils of the species above-mentioned are only found in a few places in Cape Colony in addition to those discovered in the Bokkeveld mountains.

(To be continued.)

The BUFFELSDOORN ESTATE AND GOLD MINING COMPANY (LIMITED) notify that the allotment letters for the rights in the new shares have been posted.

The share transfer-books of the NEW MATRIX SYNDICATE (LIMITED) will be closed from June 28 to July 1 (inclusive) for payment of an interim dividend of 4s. per share, being at the rate of 8 per cent. per annum.

The transfer-books of the QUEENSLAND INVESTMENT AND LAND MORTGAGE COMPANY (LIMITED) will be closed from 24th to the 29th inst. inclusive, for the purpose of preparing the warrants for interest on the fully prepaid shares for the half-year ending the 30th inst. The warrants will be posted on the 29th inst.

The AFRICAN GOLD PROPERTIES (LIMITED) have made arrangements for opening offices in Paris, at No. 4, Rue Chancat, the offices of the British and Transvaal Financial Company (Limited).

An interim dividend of 10 per cent. has been declared payable in all shareholders registered on June 30, of the SIMMER AND JACK GOLD MINING COMPANY (LIMITED). The transfer-books will be closed from 1st to 7th July inclusive.

A dividend of 22½ per cent. has been declared by the ROODEPOORT UNITED MAIN REEF GOLD MINING COMPANY (LIMITED), payable at the head office of the company, Johannesburg to all shareholders registered June 30, as soon as possible after the receipt in Johannesburg of the European transfer-list. The transfer registers will be closed from July 1 to 10 inclusive.

ALMADA AND TIRITO.—Report for the month ending May 25: Dios Padre. The lode on the 250 feet level driving north is small and poor, and we have put the men to drive in a more easterly direction so as to prove the lode near the wall of the granite.—Guadalupe. The tunnel driving south was extended 30-1 feet by six men, the total length being 130-1 feet. The lode looks well for mineral, being composed of calcareous spar and quartz. Fair progress is being made in the No. 1 shaft considering the hard nature of the rock; 29-6 feet were sunk by nine men during the month, making a total depth of 83-6 feet. The No. 2 shaft is now 89-8 feet deep, and with the whim we shall no doubt make fairly good speed.

ANGLO-MEXICAN.—The manager, writing from San José de Gracia, under date May 14, says as follows:—New main tunnel. Better progress was made in this tunnel during the week under review than for the week previous, the work having advanced 15 feet, making a total to date of 1504 feet.—Upraise No. 2. This work was advanced 4 feet during past week, making a total to date of 25 feet. Progress in this upraise is necessarily slow, owing to the difficulties attendant on the work, and hence the small advance noted.—Face of Guadalupe. Good progress was made in this tunnel during the past week, the work having advanced 15 feet during the week, making a total length to date of 2511 feet. The face of the tunnel looks about the same as last week, no apparent improvement being noticeable.—Drift south upraise No. 11 No. 1 level. This drift was advanced 12 feet during the week under review, making a total distance run to date of 34 feet. The face of the drift looks about the same as last week, and carries a low grade of ore.—Drift north upraise No. 11 No. 1 level. Work on this drift was advanced 10 feet during the week under report, making a total to date of 48 feet. The vein in the face of the drift continues of good width, and carries ore assaying \$50 per ton in gold.—Upraise No. 11 No. 1 level. As you will note, this upraise was advanced 3 feet during the week under report, making a total to date of 141 feet. The face of the upraise carries ore of fair width, and assays about \$20 per ton in gold.—Upraise No. 13 No. 1 level. This upraise was advanced 4 feet during the past week, making a total to date of 34 feet. The vein in the face of the upraise is of good width, and continues to carry ore assaying \$50 per ton in gold.—Winzes. There is no change of note to be reported regarding the work in the winzes, the assays during last week showing in general a low grade of ore in the bottom of the various winzes now being sunk.—Stopes. The vein in the stopes continues of a very good width, and is producing all the ore required for the mill.

AUSTRALIAN BROKEN HILL CONSOLS.—The mining manager reports by mail for the fortnight ended May 9: Block 95. 280 level east prospecting drive No. 4 rise east drive driven 13 feet. There is no change in the lode, the mudioc showing very strong. South-west drive driven 7 feet: The lode here consists of several small veins of carbonate of iron and calcite, showing traces of galena.—No. 6 rise. Stopes driven 6 feet; no change. Men have been transferred to No. 6 level east off incline. 280 level west driven 18 feet, total 152 feet 6 inches. The lode formation has widened, carrying two veins of iron containing galena, grey ore, and canary ore. The country consists of schist and is easy to work.—Incline No. 6 level. Put in plat and widened drive for chamber. No. 5 level east driven 11 feet 6 inches, total 153 feet. The lode is small, well-defined, and consists chiefly of calcite and carbonate of iron, showing galena and mudioc. No. 4 level east driven 14 feet. Stopping continued, obtained a little galena and fahlers, and met a trace of native silver.—Note. The quantity of rock mined during the fortnight was 26024 cubic feet.

BAYLEY'S REWARD NO. 1 SOUTH.—Manager's report, April 29:—Main shaft. South drive at the 170 feet level driven 3 feet 6 inches. Lode has suddenly contracted to 20 inches wide, but just as in the upper level, will open out again as we continue. The stone and enclosing rock is still very hard. At this point I intend rising in order to unwater the workings above.—90 feet level. North drive still engaged timbering and rising to open up stopes. Lode ranging from 6 inches to 2 feet wide, showing fine gold.—South stopes. South stopes continue as usual supplying stone to keep the battery employed, gold being visible in the stone raised. Machinery working well. (Signed) W. H. Matthews.

BAYLEY'S REWARD CLAIM.—Ore and gold return for fortnight ended April 13: Estimated amount of stone at grass, 4497 tons; stone raised, 179 tons; stone treated, 306 tons; gold won, 330 ounces.—Mining report, dated Coolgardie, April 29. Sylvester shaft. The crosscut at the 380 feet level has been driven 13 feet. Will now complete the timbering of the chamber, when driving will be resumed until the lode is intersected, which should be within a very short distance.—220 feet level. Winze from the 220 feet level to connect with the 280 has been sunk 3 feet, total 41 feet. Lode still large and highly mineralised.—100 feet stopes. Stopes at the 100 feet level expose a strong body of stone 6 feet wide, of the usual character battery stone.—Everard shaft. North drive from the end of big blow has been driven 9 feet, total 65 feet. For the last 7 feet the lode quite disappeared, but now there is a small vein 4 inches thick of iron-stained material making on the eastern wall side, which I intend to follow for some distance further.—Gordon shaft. Have during the week taken out a large quantity of stone previously left standing on the hanging wall side, consider it of fair value, gold being seen in raising.—North stopes. North stopes show no particular change either in size or quality, gold at times being exposed.—No. 1 intermediate. No. 1 intermediate stope returning stone of the usual value, lode being large and apparently fair battery stone.—Air shaft. North drive has been advanced 4 feet, total 89 feet. No change to report.—South drive. The timbering of the south drive at the same level towards Cockshott shaft has been completed, and a little work done stopping. Lode being from 18 inches to 2 feet wide, and for the little work done has shown some very fine gold.—Stone treated. Stone treated for the fortnight is 334 tons taken from the stopes 100 feet level Sylvester shaft, north, south, and intermediate stopes Gordon shaft; also from the ore dumps Gordon shaft, about an equal quantity being crushed from each place, and which gave 335 ounces of gold.—Berdan pans. The Berdan pans having arrived, they are being placed in position; in doing so, we have to make several alterations in the old works, which will shortly be completed.—(Signed) W. H. Matthews.

BALAGHAT-MYSORE.—Jos. Pryor, May 28: Ogle's shaft. As intimated in my last we have suspended the east crosscut at the 270 feet level south of the shaft for awhile, and put the men to drive south on the No. 1 lode, on which we have driven 15 feet 6 inches, or a total distance of 17 feet 6 inches from the crosscut. The lode continues from 3 to 4 feet wide, but is now presenting a more kindly appearance than when first met with, and I am hoping it will soon further improve. The last assay of the quartz, which is now about 3 inches wide, yielded 3 dwts. 17 grains of gold per ton.—Tennant's shaft. This shaft has been sunk 15 feet 6 inches, or 106 feet 6 inches below the 500 feet level. The ground is still unproductive. The shaft being now down to the required depth for another level we shall suspend its sinking for awhile, and put the men to drive the new, or 500 feet level north and south. The crosscut west of the shaft at the 500 feet level has only been driven 1 foot 9 inches, or 111 feet 3 inches from the shaft. The crosscut has been suspended for the present, and the men put to drive east at the 420 feet level as referred to below. The 500 feet level north has been advanced 24 feet 6 inches, or 161 feet from the shaft. The lode continues of a very promising appearance, but as yet it only produces quartz of from 6 inches to 8 inches wide; this, however, assays 1 ounce 2 dwts. 9 grains per ton. The 420 feet level north has been driven 18 feet 9 inches, or 208 feet 6 inches from the shaft. The quartz varies in width from 4 feet to 2 feet wide, but assays only 4 dwts. 14 grains per ton. We are daily expecting to meet with the dyke in this level. We are of opinion that this part of the lode is still standing to the east of the east crosscut formerly extended from the 420 feet level south. We have, therefore, again resumed its drive, and have advanced it 15 feet, or 39 feet 3 inches from the level. We expect to meet with the lode shortly.

D'ARCY ESTATES.—Report dated May 11: Main shaft in 394 feet. Progress during the week 8 feet. No change. Portion 54. Drive from main shaft 119 feet. Progress during the week 7 feet. Alluvial shaft on west side has reached a depth of 45 feet. Have some across alluvial wash 1 foot thick. Prospecting well in gold.

FRONTINO AND BOLIVIA.—Mr. Eastice's reports on the mines. La Salada, April 24: I am pleased to be able to report that the mines progress favorably, and that workmen are gradually returning. From the mine agents' tabulated reports enclosed, you will observe that the different points in the mines everywhere have improved; and in supplementing these, I add the following:—Silencio. The shaft sinking has been delayed, but will be resumed in a few days. In the No. 7 crosscut the ground is still very hard, the south ground in the bottom levels has become a little disordered, the lode has been split; but I anticipate no danger in this, as this has often happened in this mine. The stopes still continue in good rock, and very little difference has been noted throughout the month.—La Salada. In the past month there has been better sinking done, and as the miners have returned, we may hope for a still better state of things. The Salada lode (mentioned in Mr. Secombe's tabulated report as the San Juan lode) has been intersected, and is about 4 feet thick, showing good milling ore, richly impregnated with pyrites. As yet we have not been able to get it assayed, but I hope in my next fortnightly letter to be able to give you a full report of it. We have started levels north and south on this lode, but very little has yet been done. The flat lode has improved somewhat since last report, but still is poor.—Cordoba. We have not yet reached the lode in the No. 8 crosscut, the ground is still hard, and, having very few men, the advance made has been small. In the other parts of the mine the mineral extracted has been poor generally, and the returns small.—Tigrito. In No. 7 level driving west there is no change to notice. In this level east the lode is small and rather poor.—Marmajito. This mine has been producing well during the month, but the lode is very small, and seems to improve as the drive continues westward. Marmajito mill has been kept running on the ore from the mine, but with only six stamps.—Marmajito. Nothing has been met with in the deep level crosscut, and the ground is still very hard.—Steam hoist for La Salada. The work of the foundation of this is getting on, and the timbers for the new derrick already cut.—General. The mines throughout are looking well, and as soon as we get all our miners back, there is every probability of the returns increasing, and I hope this half-year will be equal to the last.—La Salada, 7th May: Silencio. The shaft sinking is still delayed, on account of the driving of the No. 7 crosscut, but as soon as the lode is intersected, the sinking will be resumed. If nothing occurs, this work will be on way in the coming month. The lode in No. 6 level north is very mixed, and thrown slightly out of its course by the several crossings passing through the ground at this point. In this level south the lode still remains split, but shortly the crosscourse should be met with, which after being cut through, it is hoped the lode will have become more compact, and not so mixed with granite. In No. 5 level north lode is poor, almost wholly granite, but mineralised, and assays show gold. South the lode is small but of good quality. There is no change in No. 4 levels to note. Bolivia crosscut has again been resumed, and as the ground is a little favorable for driving fair progress has been made in the past fortnight. The stopes everywhere are much the same. The lode in most places is large, consequently shows very little change from one fortnight to another. Here and there the lode is slightly pinched, and these points are left as pillars to support the hanging wall. The shoots in hoisting shaft should be finished next week, when hoisting by the new engine will be commenced in earnest. This will facilitate the sinking, as the present hoisting gear can be used entirely for the hoisting of the debris of the shaft. The skiproads are laid down to No. 5 level, and a winz started below No. 6 to reach No. 7 to meet the level to be driven from the crosscut (see K. 10). A deposit for mineral in the adit level under the vertical part of the hoisting shaft is in course of construction, and will be ready next week. The delay in this work has been caused through the lack of men; besides, it was considered prudent to retimber most of the hoisting shaft, change footway, and repair timbers generally before making a start with hoisting by steam as afterwards it could only be done with difficulties. However, the old apparatus has kept the mills fully supplied as usual. The old gear will be used in future to keep the shaft clear of debris, and to lower timbers to wherever required. Preparations are in hand to place another plunger lift at No. 7 or 500 feet level, but this can only be done after a few more feet are sunk and space cut for cistern, &c. The mine throughout looks well, and the "diarios" from the mill are fair.—La Salada. The sinking of the shaft goes on vigorously, and in about a month it is expected that the lode will be met with. After this the shaft will be divided down from surface in three compartments, pump shaft, footway, and skiproads. At the bottom of the vertical (shaft) part a plunger-lift is to be placed, the sinking continued on the course of the lode, and levels driven north and south. The lode in the north end from No. 2 crosscut is very rich, about 20 feet has been driven on it, and its quality remains the same throughout the whole drive; in the south end lode is somewhat less in quality, although larger. Throughout it is so promising that I venture to give the opinion that La Salada will be the best mine on the company's property. When the sinking is resumed from bottom of vertical, there will be several points in exploration on the La Salada lode alone. The Manto is much the same as when I last wrote, but to further discover its value in depth, and probable junction with the Salada lode, the No. 2 crosscut will be continued forward. Judging from its inclination, it should be intersected by this crosscut in a few feet, and if it is found to be of fair value, and of the ore required, two levels will be opened on it. In any case, this ought to be done, but the Salada lode will, without doubt, supply the demands of the mills now in use, and before the new mill is ready, stopping ground will be opened on it.—Cordoba. I regret that I am obliged to report that the lode is not yet cut out in the No. 8 crosscut, although every foot of ground broken gives indication of its close proximity. The ground has changed in the past few days, so much so, that it can be safely considered that the lode is near. In other parts of the mine above No. 7 level, the mineral is poor generally. Still, with a little segregation of the ore mined, the mill "diarios" have been fair for the month. Enough ore is broken to keep the mill running full time, with a little to spare for the Tigrito mill.—Tigrito. In the end west, the lode is about 18 inches thick, but for the most part it is of decomposed quartz and granite mixed. Several tons of this have been treated in the mill, with a rather discouraging result; still the end is continued forward, as, sooner or later, the shoots of ore passed through in the No. 5 level above must be met with. In the continuation of the crosscut north nothing yet is seen, and the work is carried on sparingly, as there is no necessity to push it ahead, the main lode being of more importance, and must be explored.—Marmajito. The east end is in rich rock. Lode about 34 feet thick, crystalline quartz, impregnated with galena and blende. The stopes above are in excellent ore, but the lode a little smaller—about 14 foot thick. The west end is also in good ore, but the mineral portion of the lode is small, averaging about 14 foot thick, overlapped by a contorted and broken metamorphic slate. This latter is found in the stopes above, and is probably a small crossing of very small importance. The stopes above this level are in rich ore, and the yield from the mills is good. After the end of this month the continuation of the work of the main crosscut will be suspended, and a new crosscut will be started on the Playa valley below, to open the mine at a lower depth. By survey this shows that about 150 feet of stopping ground, approximately quite intact, will be opened up, and, in all probability, in very rich mineral, if the present ends are indications, besides, it will open up the mine and make it a matter of many years' extraction. According to surface indications, other minerals may be met with in the drive of this proposed crosscut. However, nothing can yet be definitely known of this, as no explorations have been made. The opening of the mine by this crosscut will necessitate the erecting of a new mill lower down the valley, so that all the available waters can be collected, and as many stamps as possible worked. This scheme will also include Marmajito, so that both mines will be an establishment, and supervised under one head; a matter which is always advisable, instead of so many small affairs scattered in every direction. At present everything at Marmajito points to a good future, and the mine will depend entirely on the action which is here proposed, so that when the time arrives to erect a new mill the mine will be sufficiently developed to maintain the demands of a mill. The ore is rich, and at present is known for considerable

length, and there is every reason to believe it will continue.—Marmajito. No change has occurred at this mine since my last. The drives are still continued, but no mineral has been met with of importance, nor indications of any. If nothing is met with soon, I shall suspend the work at least for a time.—Sulphurets. During the last dry season, we have been very fortunate in dispatching these:—From January 1 up to date, 1852 boxes have been sent, and of these 1400 were shipped to Barranquilla last week. By reason of the disturbances, lack of men, and being busy at other work, reorganising affairs, &c., nothing more has been done in the roasting furnaces, and it is likely that while the new work is in hand they will only receive minor attention. However, I shall do all that is possible towards them, as I am convinced that, although perhaps the process may not save as much per cent. as cyanide, or chlorination, or other processes, it is cheaper, simpler, and can be understood more readily by such men as we have here to work with.—General. The mines throughout are looking well, and up to date of writing the yields from all the mills are much ahead of last month, and a much larger return can be expected. The lode cut at La Salada in No. 2 crosscut being so rich, it has stimulated operations, and I have ventured a little more extra cost in labour to push the new work whilst the exchange is high. Marmajito, too, will add very considerably to the returns and compensate for the deficit at Cordoba. El Silencio remains about the same, the south ground is in good mineral, but what is wanted to make the mine give such profits as it is capable of doing is the treatment of more mineral. This will be done when the additional stamps are erected, but it cannot be hoped for yet for some time, as other establishments require attention.—Geo. W. Eastice.

GOLDEN PLUM CONSOLIDATED.—Report dated Coolgardie, May 13: Lease 1442 (St. Leonards). The crosscut west from shaft at 26 feet level has been carried in 20 feet. The reef was cut at 17 feet, and is fully 3 feet in thickness, well defined, and showing fair gold. The drive east has been advanced 10 feet.—Lease 1443 (Missing Link). At No. 1 shaft the drive north on reef has been carried in 15 feet on reef. No. 2 shaft has been sunk to a depth of 22 feet; reef 2 feet wide, of good solid quartz, carrying good gold.—Lease 1502 (Golden Plum). The crosscut west of 26 feet level has been advanced a total distance of 31 feet.

MOUNT LYELL.—The London board have received the following report from the Melbourne board for the week ending May 1: Hanging-wall, prospecting shaft. The drive from the bottom of the shaft to the hanging wall has been advanced 6 feet, total 12 feet. In the upper portion of the face the hanging-wall country has apparently been touched.—North drive, No. 3 tunnel. The drive has been advanced 7 feet, total 150 feet. There is no change to note.—Indicator winze. The winze has been sunk 3 feet, total 104 feet. The country and pyrites are much harder than before.—North drive, No. 4 tunnel. The face has been advanced 6 feet, total 146 feet, country schist rock somewhat harder than usual.—No. 1 crosscut, north drive No. 4 tunnel. 100 feet along the drive a crosscut has been started in the main pyrites, and has been driven 3 feet, the pyrites are of normal grade.—No. 1 rise 50 level south drive, engine shaft No. 4 tunnel. The rise has been put up 2 feet, total 38 feet, there is no change to note.—North drive, 100 feet level, engine shaft No. 4 tunnel. The face has been advanced 2 feet, total 120 feet. Progress has been delayed through a sharp turn in the wall, necessitating the shooting away of the side of the drive.—South drive, 100 feet level No. 2 shaft. The face has been advanced 2 feet, total 27 feet, the pyrites still very hard.—No. 5 tunnel. The contractors have driven 4 feet, total 1017 feet. The face is in a hard bar of ferruginous rock. Progress report for the week ending May 1: Abt line. Bridge over Queen river making good progress, and girder beams are now being placed in position. Hope to have rails across in one week. Earthworks completed through to junction with 2 feet tram with the exception of abutments of Queen river bridge and slopes of cuttings, which will be completed in the course of a few days.—Haulage line. Works well advanced to bank engine site, and in progress on mine side of hill. Will commence erection of bank engine shed to-morrow, and shortly afterwards the foundations for engine. Machinery and materials arriving on ground rapidly.—Smelter site. Excavations in progress for 175 feet.—Brick and saw mill plants. Running full time satisfactorily. Weather very wet and changeable.

MYSORE REEFS (Kangundy).—Fortnightly report of Captain Scantlebury, dated May 28: Underlie shaft. This shaft has been sunk 6 feet 6 inches, now 59 feet below the 325 feet level. The rock is very hard and the quartz pinched. Level north from bottom of winze has been extended 10 feet, now 32 feet 6 inches from winze. The quartz is 2 feet wide assaying 1 ounce 2 dwts. of gold to the ton. Stope in bottom of 325 feet level north. The quartz is 15 inches wide assaying 1 ounce 5 dwts. of gold to the ton. Stope in back 325 feet level south of rise. The quartz is 15 inches wide assaying 8 dwts. of gold to the ton. Stope north of rise. The quartz is 12 inches wide assaying 13 dwts. of gold to the ton. Vertical shaft. The 260 feet level north has been extended 13 feet, now 148 feet 6 inches from shaft. The quartz is 18 inches wide assaying 4 dwts. of gold to the ton. Winze below this level has been sunk 3 feet; now 19 feet 3 inches below the level. The quartz is 3 feet wide assaying 13 dwts. of gold to the ton. Winze below the 200 feet level south has been sunk 4 feet, now 68 feet 3 inches below the level. The quartz is 15 inches wide assaying 10 dwts. of gold to the ton.—Trial shaft south has been sunk 6 feet, now 27 feet from surface. The quartz is 14 inches wide assaying 6 dwts. of gold to the ton. We have had a break-down at the air-compressor, necessitating a stoppage of 48 hours. Otherwise more work would have been done with the rock-drills.

MY-ORE GOLD.—R. Hancock, May 28: Mining operations for the fortnight ending May 27. Rows's shaft, 1460 feet level north of crosscut west. This end has been driven 8 feet, making a total distance driven of 184 feet. There is nothing here to report.—1460 feet level north of sump winze. This level has been driven 16 feet, making a total distance driven of 240 feet. The lode is 4 feet wide, assaying 7 dwts. 19 grains.—1460 feet level south of sump winze. The winze in the bottom of this level has been sunk 4 feet, making a total depth of 62 feet. We have suspended the sinking, and have put the men to drive south from the bottom of the winze, driven 11 feet. The lode is 2 feet wide, assaying 9 dwts. 2 grains. The rise in the back of this level against Ribblesdale's shaft has been put up 14 feet, making a total height of 44 feet. The lode is 4 feet wide, assaying 8 dwts. 11 grains.—1360 feet level south of crosscut. There are three stopes in the back of this level, the average width of the lode being 2 feet 6 inches, giving an average assay of 11 dwts. 9 grains.—1360 feet level north of crosscut. There are two stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 1 dt. 7 grains.—1360 feet level south of sump winze. This level has been driven 13 feet, making a total distance driven of 48 feet. The lode is 3 feet wide, assaying 13 dwts. 1 grain.—1260 feet level north. This level has been driven 18 feet, making a total distance driven of 747 feet. The quartz has been cut off by a dike. There are four stopes in the back of this level, the average width of the lode being 4 feet 7 inches, giving an average assay of 1 ounce 21 grains. Driving south on the fold from the top of the sump winze. Driven 3 feet, making a total distance driven of 6 feet, the lode is 1 foot 6 inches wide assaying 1 ounce 21 grains.—1260 feet level south. There are three stopes in the back of this level, the average width of the lode being 4 feet, giving an average assay of 1 ounce 14 grains.—1160 feet level north. There are four stopes in this level, the average width of the lode being 2 feet 4 inches, giving an average assay of 13 dwts. 1 grain.—1160 feet level south. This level has been driven 2 feet, making a total distance driven of 427 feet 6 inches, the lode is 1 foot 6 inches wide assaying 6 dwts. 12 grains. There are two stopes in this level, the average width of the lode being 1 foot 3 inches, giving an average assay of 1 ounce 9 dwts. 14 grains.—North of the crosscut east. This has been driven 20 feet, making a total distance driven of 86 feet, the lode is 1 foot wide assaying 1 ounce 18 dwts. 6 grains.—South of the crosscut east. This has been driven 12 feet, making a total distance driven 30 feet, the lode is 1 foot wide assaying 1 ounce 19 dwts. 4 grains.—1060 feet level north of crosscut. This has been driven 15 feet, making a total distance driven of 24 feet. There is nothing here to report.—

890 feet level north of crosscut. This end has been driven 16 feet, making a total distance driven of 324 feet 8 inches, the lode is 2 feet 6 inches wide assaying 6 dwts. 12 grains. There are three stopes in the back of this level, the average width of the lode being 4 feet 8 inches, giving an average assay of 1 ounce 13 dwts. 22 grains.—890 feet level south. This level has been driven 11 feet 6 inches, making a total distance driven of 322 feet 6 inches.—780 feet level north on new chute. We have started a rise in the back of this level 353 feet north of the crosscut, which has been put up 13 feet. The lode is 1½ foot wide, assaying 1 ounce 12 dwts. 16 grains. There are three stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 1 ounce 6 dwts. 2 grains.—620 feet level north of crosscut. There are five stopes in this level, the average width of the lode being 2 feet, giving an average assay of 4 dwts. 4 grains.—620 feet level south of crosscut. There are two stopes in this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 19 dwts. 10 grains.—Driving south on the branch in the 620 crosscut east. This end has been driven 3 feet, making a total distance driven of 43 feet 6 inches. The lode is 1 foot 6 inches wide, assaying 5 dwts. 5 grains.—Crocker's shaft. This shaft has been sunk 17 feet 6 inches, making a total depth of 224 feet 6 inches below the 620 feet level. There is nothing here to report.—465 feet level north. The lode in the stope in the back of this level is 4 feet wide, assaying 1 dwt. 7 grains.—400 feet level north. There are two stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 8 dwts. 3 grains.—296 feet level north. The lode in the stope in the back of this level is 1 foot 6 inches wide, assaying 9 dwts. 18 grains.—236 feet level north. There are three stopes in the back of this level, the average width of the lode being 1 foot 8 inches, giving an average assay of 1 ounce 8 grains.—Taylor's shaft. 466 feet level north. The lode in the stope in the back of this level is 2 feet wide, assaying 7 dwts. 3 grains.—Gilbert's shaft. 520 feet level north. There are two stopes in the back of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 13 dwts. 9 grains.—520 feet level south. The lode in the stope in the back of this level is 2 feet wide, assaying 1 ounce 2 dwts. 4 grains.—430 feet level north. There are two stopes in the back of this level, the average width of the lode being 2 feet 2 inches, giving an average assay of 15 dwts. 360 feet level north. The lode in the stope in the bottom of this level is 2 feet wide, assaying 2 dwts. 14 grains.—290 feet level north. There are two stopes in this level, the average width of the lode being 1 foot 10 inches, giving an average assay of 16 dwts. 4 grains.—290 feet level south. The lode in the stope in the bottom of this level is 2 feet 6 inches wide, assaying 6 dwts. 12 grains.—180 feet level south. There are two stopes in the back of this level, the average width of the lode being 3 feet, giving an average assay of 11 dwts. 17 grains.—Tennant's shaft, crosscut west at the 750. This has been driven 20 feet, making a total distance driven of 129 feet 2 inches.—520 feet level north. There are two stopes in the bottom of this level, the average width of the lode being 1 foot 9 inches, giving an average assay of 8 dwts. 19 grains.—Schaw's shaft. 450 feet level north of crosscut. There are three stopes in the back of this level, the average width of the lode being 1 foot 3 inches, giving an average assay of 11 dwts. 23 grains.—450 feet level south of crosscut. This level has been driven 1 foot 3 inches, making a total distance driven of 328 feet 3 inches. The lode is 9 inches wide, assaying 3 dwts. 22 grains. The winze in the bottom of this level has been sunk 8 feet 6 inches, making a total depth of 70 feet 3 inches. The lode is 1 foot 3 inches wide, assaying 16 dwts. 23 grains. There are three stopes in this level, the average width of the lode being 2 feet 3 inches, giving an average assay of 13 dwts. 11 grains. McTaggart's shaft has been sunk 2 feet, making a total depth of 67 feet 3 inches below the 550 feet level.—550 feet level north. This level has been driven 15 feet, making a total distance driven of 122 feet 5 inches.—550 feet level south of crosscut west. This end has been driven 14 feet, making a total distance driven of 89 feet 6 inches.—320 feet level south. There are three stopes in the back of this level, the average width of the lode being 2 feet 1 inch, giving an average assay of 6 dwts. 19 grains.—Glen shaft, 250 feet level north, No. 1 crosscut east. This has been driven 3 feet, making a total distance driven of 26 feet 9 inches.—Ribblesdale's shaft. The men are engaged stripping down the rise and timbering.—Williams' shaft crosscut east from the 173. This has been driven 2 feet 6 inches, making a total distance driven of 127 feet 2 inches. Health good.

NUNDYDROOG.—Report for the fortnight ending May 25:—Taylor's shaft has been sunk 7 feet 6 inches, total depth 84 feet 6 inches below the 1160 feet level. Lode 1 foot 3 inches wide, assaying 3 dwts. 18 grains. The 1160 south has been driven 17 feet, total distance 84 feet 6 inches. Lode 1 foot wide, assaying 10 dwts. The 1160 north rise has been put up 20 feet, total height 46 feet 6 inches. Lode 1½ foot wide, assaying 1 ounce 10 dwts. The 1000 north rise has been put up 16 feet, total height 49 feet. Lode 1 foot 6 inches wide, assaying 5 dwts. In the stope in the back of the 760 north the lode is 2 feet 6 inches wide, and assays 10 dwts. The lode in the stope in the bottom of the 680 north is 2 feet wide, and assays 6 dwts. 6 grains, and in the stope in the back of the 600 north is 1 foot 6 inches wide, assaying 7 dwts. 12 grains. In two stopes in the bottom of the 520 north the lode averages 2 feet 6 inches in width, and 10 dwts. 15 grains in assay value. The 450 north intermediate drive has been extended 6 feet. Lode 1 foot wide, assaying 2 dwts. 12 grains. The lode in the stope in the bottom of the 370 north is 2 feet wide, and assays 5 dwts.—Main shaft. The 1080 south has been driven 18 feet, total distance 68 feet. Lode 1 foot wide, containing a trace of gold only. The 1080 north has been driven 23 feet, total distance 81 feet 6 inches. Lode 4 feet 6 inches wide, assaying 2 ounces 11 dwts. 6 grains. In the crosscut east from the 1000 feet level north (at 189 feet north from the shaft) the lode was met with at a distance of 7 feet, and found to be 3 feet wide, worth 2 ounces 12 dwts. 12 grains. The level has since been extended 9 feet 6 inches on its course northward, but finding its value decreased to 3 dwts. 21 grains in that direction, it is now being opened upon southwards from the crosscut, where it is 3 feet wide, assaying 1 ounce 1 dwt. 6 grains. In the stope in the back of the 920 south the lode is 8 feet wide and assays 15 dwts. The lode in the stope in the bottom of the 840 south is 3 feet wide, assaying 16 dwts. 6 grains; and in three stopes in the back of this level averages 6 feet 6 inches in width and 8 dwts. 18 grains in assay value. Crosscut east at the 680 north has been extended 12 feet, total distance 382 feet 6 inches. A few quartz stringers have been met with. The 680 south from crosscut east has been extended 12 feet, total distance 24 feet. Lode 3 feet wide of no assay value. The 520 has been extended eastward on the crosscourse 31 feet 6 inches, total distance 286 feet 6 inches. The 520 north from crosscut east has been driven 23 feet 6 inches, total distance 28 feet 6 inches. Lode 1 foot wide of no assay value. The 370 crosscut east has been extended 6 feet 6 inches, total distance 46 feet. Some quartz stringers have been met with. Kennedy's shaft has been sunk 5 feet, total depth 41 feet below the 600 feet level. The 600 south has been driven 14 feet 6 inches, total distance 45 feet. Lode 6 inches wide, assaying 3 dwts. 18 grains. The 600 north has been driven 17 feet 6 inches, total distance 51 feet 6 inches. Lode 2 feet 6 inches wide, assaying 9 dwts. 9 grains. The 520 south has been driven 26 feet 6 inches, total distance 512 feet 6 inches. Lode 1 foot 6 inches wide, assaying 2 dwts. 12 grains. The 520 north rise has been put up 26 feet 6 inches, total height 99 feet 6 inches. Lode 4 feet wide, assaying 1 ounce 2 dwts. 12 grains. The 440 south has been driven 22 feet, total distance 949 feet 6 inches. Lode 6 inches wide of no assay value. In the stope in the back of this level the lode is 2 feet wide, worth 1 ounce 2 dwts. 12 grains. The 440 north rise has been put up 11 feet 6 inches, total height 73 feet 6 inches. Lode 2 feet wide, assaying 1 ounce 17 dwts. 12 grains. In the stope in the back of the 440 north the lode is 9 feet wide, and assays 1 ounce of gold per ton. The 370 south has been driven 18 feet, total distance 669 feet. Lode 1 foot wide of no value. The 370 north has been driven 10 feet 6 inches, total distance 515 feet 6 inches. Lode 1 foot wide of no value. The lode in the stope in the bottom of this level is 7 feet wide and assays 16 dwts. 6 grains, and in the stope in the back of the level is 5 feet wide, assaying 2 ounces 13 dwts. The 370 north

rise has been put up 6 feet, total height 53 feet. Lode 4 inches wide, assaying 2 dwts. 12 grains. Crosscut west at the 370 north has been extended 11 feet, total distance 347 feet. No change. The 300 south has been driven 15 feet 6 inches, total distance 543 feet. Lode 1 foot 6 inches wide of no assay value. In the stope in the back of this level the lode is 2 feet wide, and assays 10 dwts. A plat is being cut in the south end of north shaft in anticipation of driving the 230 feet level south. At this point the lode is 2 feet wide, and assays 1 ounce 1 dwt. 6 grains. The lode in the stope in the back of the 160 north is 4 feet 6 inches wide, assaying 6 dwts. 6 grains. North shaft has been sunk 3 feet 6 inches, total depth 40 feet below the 520 feet level. Lode 2 feet 6 inches wide, containing a trace of gold.

NAMAQUA.—Abstract of superintendent's report for April. Twelfth month m. n. 125 fathom level east. There is no change in this driving; it is still in poor ground.—115 fathom level east. The lode as far as can be seen is about 5 feet wide; the ore produced is of good quality. Worth 5 tons of ore per fathom.—115 fathom level, No. 33 winze. This winze is to prove the value of the lode in the bottom of the level as well as to ventilate the 125 fathom level. At present it is producing good quality ore. Worth 5 tons of ore per fathom.—105 fathom level east, No. 32 winze. This winze is getting into more valuable ground. It will be continued to the 115 fathom level. Worth 3 tons of ore per fathom.—95 fathom level west. The only change in this place is that the lode is a little wider. Worth 5 tons of ore per fathom.—85 fathom level west. At this point the lode is apparently much wider than the driving, and is mixed with ore throughout, but has not improved as anticipated. Worth 3 tons of ore per fathom.—Stopes. No. 1, bottom of 105 fathom level west; No. 2, back of 105 fathom level west; No. 3, bottom of 95 fathom level west; No. 4, bottom of 95 fathom level east. There is no change worthy of notice in any of these stopes. They are worth respectively 5, 10, 8 and 8 tons of ore per fathom.—New shaft. 25 fathom level south-west. This level is nearing the bottom of the No. 4 shaft, and a connection will probably be made with it in a short time.—25 fathom level west. Some of the south side of this level has been blasted out, and appearances indicate a further widening of the lode, and consequently a further extension of the ore body in that direction. There is but little doubt that there is a large body of ore about this place. Worth 7 tons of ore per fathom.—Stopes No. 1, stope No. 2. These stopes are each worth about 10 tons of ore per fathom.—No. 4 shaft. Very good progress has been made in sinking this shaft, and it is now about the required depth to meet the 25 fathom level west from No. 2 shaft.—Output for February (received by mail). 510 tons of ore of 26 per cent.—Output for May. 500 tons of ore of 26 per cent.—Shipping. The *Glenriven* and *Hinda* left Port Nolloth for Swanesa on June 10, with about 650 tons and 700 tons of ore respectively.

NEW RAND.—The general manager in South Africa, Mr. R. H. Cavill, reports that the claim beacons have been re-arranged by consent of the Claims Inspector, with the result that three additional claims have been secured by the company, which now owns 109 claims instead of 106. Mr. Cavill also states that the cyanide experiments are highly successful, and the plant will be so erected that it will be in place for the battery when erected. Your company is looking exceedingly well, and is gradually improving with work. It is now pretty generally conceded that the New Rand will soon come to the front, and enquiries are being made for stock. I cabled you on May 17: Ore from the mine averaged for the last seven days 8 dwts. per ton. The reef is now wider than the drive—which I now confirm.

NINE REEFS.—Mine report for fortnight ending May 28. Vyvyan's shaft. The lode in the stope in the bottom of the 220 feet level south continues from 2 to 3 feet wide, but the quartz is only from 6 inches to 1 foot wide. It, however, assays 18 dwts. 19 grains of gold per ton. The two stopes in the back of the 220 feet level south produce quartz of 8 to 10 inches wide, and of an average assay value of 1 ounce 18 dwts. 19 grains per ton. The new stopes in the bottom of the 145 fathom level south yield quartz of about 1 foot wide, and assay 7 dwts. 3 grains per ton. The three stopes in the back of the 145 feet level produce quartz of 8 to 10 inches wide, and assay on an average 17 dwts. 4 grains per ton. Some time ago a rise was put up from the back of these stopes with the hope of opening up more stopping ground, but unfortunately, the rise was very soon holed into old workings. We have, however, recently started another rise further south. This is now up 12 feet above the back of the stope, and produces quartz from 9 inches to 1 foot wide, and of an assay value of 1 ounce 3 dwts. 9 grains per ton. We purpose starting off a fresh stope from this place next week.—South shaft. This shaft has only been sunk 6 feet 6 inches, or 22 feet below the 210 feet level. The lode is improving somewhat in appearance, and now carries a little quartz, but as yet is not sufficient to value. We are not satisfied with the speed of sinking the shaft, and are making sundry alterations with a view of increasing it, and hope shortly to be able to report a more satisfactory rate of progress. 210 feet level north has been driven 10 feet 8 inches, or 78 feet from the shaft. The lode continues about 3 feet wide, but as yet it only carries a little quartz. This, however, assays 7 dwts. 15 grains per ton. The 210 feet level south has been extended 11 feet 6 inches, or 61 feet 6 inches from the shaft. The lode is improving a little in appearance, and now yields quartz of about 6 inches wide, and of an assay value of 5 dwts. 12 grains per ton. The crosscut west of the shaft at the 210 feet level has been advanced 10 feet, or 58 feet 3 inches from the shaft. Nothing of importance has as yet been met with.—McTaggart's lode, No. 1 shaft. During the last fortnight we have been engaged fixing and repairing the ladder and bucket roads of the shaft, consequently but little has been done towards deepening it, its present depth being only 128 feet from surface. The lode is from 1 foot to 1 foot 6 inches wide, but as yet it only carries a little quartz, and this week only assays 1 dwt. 8 grains per ton. The 100 feet level north has been driven 5 feet 1 inch, or 117 feet 6 inches from the shaft. The end is still in dyke.

QURO PRETO.—Passagem mine. Report for the month of April. Incline shaft No. 1 was sunk 20 metres. The lode has dipped down from the roof, and the upper half of the breast is in quartz of good quality with quartzite below. Incline shaft No. 2 was sunk 2 metres, and continues full size in low grade quartz. 505 end north east was driven 230 metres. It appears to be entering the ore shoot, and now carries over 1 metre of quartz with patches of pyrites. 505 end south-west was driven 2 metres. It carries a branch of quartz 50 centimetres thick, but the rest of the end is in schist. 470 end north-east was driven 450 metres. The quartz has risen and is now standing nearly full height of the end, but is very hard for driving 470 end south west was driven 360 metres in schist without ore. 435 end north-east was driven 330 metres, but is still in quartzite. Crosscut at 425 between shafts was driven 290 metres in footwall schist, carrying a small line of arsenical pyrites. 400 end north-east was driven 540 metres in mixed lode of schist and quartzite, with a little ore along the floor. Winze under 400 north-east was sunk 180 metres in footwall, schist, and being deep enough is suspended. 365 end north-east was driven 480 metres. The end is now nearly full size in quartz, and the lode is resuming its normal direction. End from No. 2 crosscut at 365 end north-east was driven 6 metres in quartz, but latterly the lode has become a good deal mixed with quartzite, and unless it improves the trial will be discontinued. Rise between crosscuts at 365 north-east was advanced 380 metres and continues in quartzite. 365 end south-west was driven 620 metres. It carries a small branch of tourmaline ore against the back, but is mostly in schist. Rise over 315 north-east was advanced 250 metres in schist carrying small lines of ore.—315 end south-west. Driving has been resumed and the end advanced 3 metres, but at present it carries little ore. Rise over 265 south-west was advanced 5 metres. It is getting into the decomposed ground met with at 215 level, and ore is beginning to make against the roof. End on lower lode at 235 south-west is a trial that has been commenced on a pyritic branch in the footwall. It was driven 410 metres and produces good stones of solid pyritic ore. 215 end north-east was driven 470 metres and continues without change, nearly full winze in lode, with a bar of quartzite against the floor.—Stope. The stopes at the 435 level continue to be very productive and, in fact, as the stopes

advance the working face has become higher, as the hanging-wall rises and the footwall has only now been met with. In the two stopes near No. 2 shaft the lode is over 6 metres thick, and composed entirely of clean milling ore of good quality. In the two outer stopes the lode is not quite so thick, averaging about 4 metres, but there also the ore broken is very clean and of good yield. At the 400 level north-east the stope on lower lode has been communicated to upper stope, and a long working face has been laid open, the lode averaging 350 metres thick. The stope on pillar near the level is also looking well, the lode being over 4 metres thick, and composed of massive quartz with pyrites throughout. In the stope south-west from rise 28 the lode in the lower stope has become very much mixed with schist, and yields little ore, but in the upper stope the schist is cutting out, and there is a thickness of over 4 metres of quartz. North-east of No. 2 shaft at this level the lode in stope carries a very regular branch of quartz about 2 metres thick against the roof, but the rest of the lode is quartzite. At the 365 south-west the stope near No. 1 shaft has communicated to old stope from rise 24, but there is still a good piece of stopping ground from here up to the 315 level, the lode being about 4 metres thick, though somewhat mixed with quartzite. In the inner stopes at 365 south-west the lode is rather small, the ore averaging 150 metres thick, but it extends very regularly over the working face 25 metres long, and carries a fair amount of pyrites and tourmaline ore. The stopes at the 315 south-west show little change. The inner stope continues in a strong massive body of lode, nearly 5 metre thick, most of which is milling ore, whilst near rise 30 the lode is still rather small, and mixed with schist. At the 315 north-east the stopes under the level have communicated to the level. There is more ore ground for stopping further in, but though the quartz is of strong, massive appearance, it is of lower yield than that hitherto stoped at this point. In the stope in Bureau Sacco shoot, the ore has now been removed down to the footwall, and the total height of excavation is about 9 metres. From this excavation under the level another stope will be carried forward. The ore in sight is equally strong, and of as good yield as that removed, and it is expected that this stope will continue to produce good quality ore for some months.—Henry J. Gifford.

BRITISH BROKEN HILL PROPRIETARY.—Mining manager's report for the week ending May 8. Blackwood (No. 1) shaft. 240 feet level, south drive off plat driven 25 feet, making total length 82 feet, at which point drive was stoped as sulphides pinched out. We broke 3 tons sulphide ore, averaging 18 per cent. lead, 19 ounces silver, and 29 per cent. per ton. We are now commencing an easterly crosscut off end of above drive to prove country in that direction. North drive started on Monday last was driven 7 feet, face so far in low grade sulphides.—Howell (No. 2) shaft. 300 feet level, west crosscut from plat driven 15 feet, total distance 22 feet, face in country. South-west drive off west crosscut extended 10 feet, making total length 45 feet; face in low grade sulphide. We broke 8 tons sulphide ore, which assayed 18 per cent. lead, 21 per cent. silver, and 14 ounces silver per ton.—240 feet level, south-west drive started about 6 feet off winze was driven 27 feet, all the way through good sulphide ore. We broke 36 tons sulphide ore, averaging 44 per cent. lead, 7 ounces silver, and 18 per cent. zinc.—100 feet level. Uprise in far north stope has connected to surface; are now timbering and cleaning up same, which will be finished in a few days.—Marsh (No. 6) shaft. 2nd level. Have completed work in winze in main south drive, and have resumed sinking operations in bottom winze down west crosscut, which was sunk 5 feet, making total depth 11 feet; sulphides showing in places in bottom. We broke 24 tons carbonate ore, averaging 28 per cent. lead and 59 ounces silver per ton. The tributors mined 33½ tons carbonate ore, averaging 16 per cent. lead and 57 ounces silver per ton. Will commence fossicking around this point. The tributors on this level have broken a fair supply of carbonate ore during past week.—Retallick's workings. The tributors down winze in north drive have only mined a small quantity of ore during the week, breaking 5 tons carbonate ore, averaging 24 per cent. lead and 24 ounces silver per ton. We have commenced shipping carbonate ore, which is being carted in from Marsh shaft to Block 14 Company's works at Port Adelaide.—The week's assays vary: Carbonate ore from 1 to 57½ per cent lead and 84 to 229.2 ounces silver per ton; sulphide ore from 6.5 to 57.5 per cent. lead, 5.27 to 30.55 per cent. zinc, and 3.9 to 19.6 ounces silver per ton.

VICTORY (Charters Tower).—Manager's report for the fortnight ending May 4.—No. 1 shaft. Stopes over No. 2 level on Papan reef show 3 to 16 inches of fine, quartz, a trace of pyrites. Raised 40 tons. Estimated quantity at surface 150 tons. No. 2 shaft. Stopes over No. 1. A level carry from 6 to 30 inches of very fair stone. Stopes over intermediate level, between Nos. 1 and 2 levels, average 18 inches stone, quality medium. Underhand stope from No. 7 level carries 6 to 20 inches stone, showing more mineral and improving in quality—raised 90 tons. No. 3 shaft (new shaft) sunk 15 feet, total 45 feet.

WENTWORTH EXTENSION.—Report dated May 11.—Carroll shaft, No. 1 west crosscut. Driven during the week 15 feet without any change, total length 76 feet. East crosscut in 91 feet. Progress during the week 10 feet. Still in hard diorite.
YERRAKOONDA.—Fortnightly report of Captain Scantlebury, dated May 28: Beresford's shaft has been sunk 9 feet 6 inches, now 37 feet below 300 feet level. The lode is 7 feet wide, composed of dark blue quartz and arsenical pyrites, but of low grade, worth 2 dwts. of gold to the ton. Crosscut west 200 feet level north has been extended 13 feet, now 38 feet from the level. The rock is very hard in this crosscut. New engine shaft has been sunk 7 feet, now 197 feet from surface. The water is very quick, but I hope the crosscut from the 200 feet level north of Beresford's will soon drain this shaft. South shaft has been sunk 6 feet, now 115 feet from surface on the course of the lode. The water is very quick, and yesterday we were beaten with the appliance then in hand. To-day we have commenced to put down the pitwork. I hope by next week to have the engine and pumps at work. The lode in the shaft is 4 feet wide, 2 feet 6 inches being solid quartz. We mined a few tons of the quartz last week, and obtained 7½ dwts. of gold per ton from the plates.

ELECTRIC LIGHTING OF THE MARKET HALL, DERRY.—An interesting ceremony took place last Thursday week, when the Mark is Committee inspected the electric lighting of the Derby Market Hall. Mr. Butterworth (deputy-Chairman) accompanied by a representative committee, and the borough surveyor, Mr. J. Harrison, met the contractors, Messrs. John Davis and Son, of All Saints' Works, at 9 p.m., when the electric light was switched on. The arc lamps in the interior of the hall consists of six, taking 20 amperes each, and are suspended from the roof with special raising and lowering gear. The approaches are also lighted by arc lamps. Each stall and shop is provided with its own incandescent lamp, a special feature in the butchers' shops being the raising and lowering adjustment. There are approximately 400 incandescent lamps throughout the buildings. The committee much appreciated the general lighting arrangements, and were exceedingly interested in the elaborate switchboard which controls the various circuits, six in number. The arrangement has been very carefully thought-out. Each group of lamps is provided with a safety cut-out on each main. Each section of lighting is again provided with a safety cut-out, which is again repeated on the main switchboard so that should any short circuit occur in any individual lamp only a very small section of lighting is temporarily extinguished. Reverting to the switchboard, the meters are so arranged that the current, being consumed by any of the various sections may be ascertained at a glance. We are informed that the light is now to be immediately employed in the Market Hall, and that the reign of gas is at an end.

A branch office of the **KLEINFONTEIN DEEP SYNDICATE (LIMITED)** has been opened at Warrford-court, E.C. Messrs. H. Wagner, Sir Greyham, and Thomas R. Bradberry have been appointed the London committee.

NEW MATRIX SYNDICATE.—An interim dividend of 4s. per share has been declared.

MEETINGS OF MINING COMPANIES.

THE CLYDE GOLD MINES, LIMITED.

Some promising reports of the property.—The quartz of exceptional richness.

The first ordinary general (or statutory) meeting of the Clyde Gold Mines (Limited) was held at the offices of the company, 6, Drapers' Gardens, E.C., on Tuesday last.—Mr. R. H. WENSCRAFT presiding.

Mr. W. A. LUNING (the secretary) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—This is the first (or statutory) meeting that the Act of Parliament requires should be held within four months of the registration of the company, and before proceeding further I propose giving you a *résumé* of the position and value of your property as gathered from the report of Captain Richards, the well-known Ballarat manager, who reported at the request of your directors. He states:—"I have carefully examined the property known as the Clyde. The situation of the mine is about 25 chain south-west of Bayley's Reward, and includes Bayley's original claim, where the first rich alluvial discovery was made at Coolgardie. From here and other portions of the Clydesome thousands of ounces of gold have been obtained. With the exception of only a small portion at the north-east end, the whole of the area is completely covered with alluvial deposits, in some cases running to a considerable depth below the surface. Trenching has exposed several subsidiary veins and reefs, from which a large quantity of gold has been taken by dollying. What appears to be the main reef enters the north-east boundary from Ritanita. There is every reason to believe the reef is a splendid one, and extends full length of the property. Are now sinking, and the crosscut in 50 feet level shows the width of the reef is 9 feet; indications are favourable for permanence to great depth; shaft has reached a depth of 85 feet. Picked stone forwarded to Sydney office realised £70, yielding at the rate of over 100 ounces of gold per ton. Fine gold is also visible through the whole length of the main reef where exposed. Stone is free milling ore suitable for battery treatment. Dam can be made at natural depression in the middle of lease by a small expenditure. Water should be met with at under 150 feet. There is every reason to believe a network of reefs traverse this ground, the same being a matrix from which surface gold was obtained. The whole of this flat is very rich, representing, in my opinion, the heart of the best mines of Coolgardie." It is hardly possible, as a rule, in so short a time to report much progress in mining enterprises; but in our case the possibility becomes more remote from the fact that it was only three or four weeks ago we received cable information of the title deeds having been duly and satisfactorily transferred and registered in the name of your company. Since the receipt of this cable your directors have not been inactive as regards the interests of the company. They have entered into a most satisfactory arrangement with Mr. Wright (who is at present in England) to accept the management of the mine—an arrangement that I am sure will meet with your approval. I need not remind you of the importance of selecting Mr. Wright as your manager. He is well known in Australia, and bears a high character as a miner in this country, having been recommended to your directors by the well-known firm of Messrs. Bainbridge, Seymour, and Co. He has carefully inspected your property, and sent a most able report on it to the corporation from whom you purchased, and his opinion of the property is summed up in the following extracts from his report. He states his estimate of the value of the ore in the main reef will average 6 ounces to the ton, and concludes his report as follows:—"Generally I take it that the Clyde and Clyde Extended Mines are as valuable as any on the Coolgardie gold field. I am of opinion that in this mine you possess one of the most valuable in the field, which cannot fail, when adequate machinery is erected, to return the shareholders very handsome and regular dividends." On him then, I and my colleagues say, should lie the burden of proving his own words. I am glad to say Mr. Wright is present here and will speak for himself. In two or three weeks' time we hope to see Mr. Wright start on his voyage to West Australia; in the meantime we have appointed his son acting manager. We have just received a cable from him, announcing the fact of having taken possession, and promising to send regular reports. We cannot expect to hear of much progress since the registration of the company, as the vendor syndicate will have done no more on the ground than comply with the bare labour conditions, but we hope now to push on with real active work. While at this stage of my report I may tell you of one point that is engaging the attention of your directors, and that is what I propose calling the consolidation of your claims. I may remind you that you possess two claims, No. 84 known as the Clyde, and No. 319 known as Clyde Extended, amounting in all to about 27 acres, and situated near the Coolgardie township. Now, the labour clauses of the Colonial Mining Act insist that the work shall be done on each claim. On No. 84 a shaft has been sunk to upwards of 85 feet in depth, which has sufficiently proved the permanence and continuity of the reef known as the Ritanita reef, and described by Captain Richards as a splendid one. Your directors think that on the ground of economy and expedition, labour should for the present be concentrated solely on this shaft, and this can only be done by consolidating our two claims, and having them registered as one lease, so that the labour that would have to be employed on No. 319 could be transferred to No. 84. We have decided to push on sinking the shaft in No. 84, and collecting the ore at grass, and to thoroughly develop the property, so that when the machinery is started, which we hope will be soon, the mill can be kept going constantly. I might mention, in conclusion, that the celebrated richness of the Clyde has already been quoted in London in support of the value of an adjoining property, and I would add that the vendors are so satisfied with the value of your property, that they have taken the whole of the purchase consideration in shares, a fact that speaks for itself. Out of a capital of £65,000 the sum of £20,000 has been reserved for working capital, which should be amply sufficient for the purpose. I do not think I have anything further to say, gentlemen, that will be of interest to you, and so will conclude with the assurance that the development of your property is receiving our most anxious care and attention, and while economy will be our watchword, the speedy advancement of your mine to a dividend-paying footing will be the haven for which we shall steadily steer.

Mr. HENRY WRIGHT, the manager, then addressed the meeting. He said: After the able speech by the Chairman very little has been left unsaid; however, for your information I may say that I am intimately acquainted with the property, have resided on the ground for nine months, and have watched the progress with great interest from the first development. When about 150 tons of ore had been raised to the surface (the quartz being of exceptional richness) it attracted the attention of certain parties who attempted to jump the lease, hence the delay in forming a company. It will give you some idea of the richness of the ore when I tell you, that notwithstanding the notice of the Warden that the ore at grass was under his protection, every ounce was carried off by miners, and the gold dollyed out. From my own knowledge and observation, I can say that a very large quantity of gold was thus taken away. This rich ore has been proved by sinking to go down, the shaft now being 85 feet deep, the reef maintaining its strength and thickness as depth is attained, gold being visible throughout. Having been appointed manager of this mine, I intend pushing the work ahead vigorously and without delay, as I am sure that handsome returns can be made immediately development takes place, as I look upon this property as being one of the best on the field.

In answer to a SHAREHOLDER, who asked a question about the water, Mr. WRIGHT said: With regard to the water I can confidently

state that it is simply a question of going down a further 20 or 30 feet, as on the adjoining property an abundant supply has been obtained, so much so that they are selling their surplus quantity to another mine at a good profit.

On the motion of Dr. BENSLEY, seconded by Mr. BERBECH, a cordial vote of thanks was given to the Chairman.

WHEEL AGAR.

The adjourned meeting.

An adjourned meeting of the shareholders in Wheel Agar on Friday last week received the report of the committee's interview with the committee of East Pool.

Mr. A. L. HATTERSLEY presided, and explained that they met the committee at Penzance on the previous evening. The first thing East Pool people wanted to know was what they had to say about amalgamation, and the scheme which they suggested, and put in writing, was read to them. It started by pointing out that East Pool had 6400 shares and Wheel Agar 4117—a total of 10,517. They proposed that a new company should be formed of 12,400 shares. Of these East Pool should have 6400 allotted to them, and Wheel Agar 4117 shares, the balance of 1883 to be offered to the public at about £5 10s. per share, unless the shareholders should prefer to take them *pro rata* amongst themselves. In either case this would give the new company a working capital of £10,000. In case of the present holders preferring to take the 1883 *pro rata*, Mr. Hattersley, who was at present the largest holder, would be prepared to take up his proportion and Mr. Hamilton would be prepared to do the same. (Hear, hear.) The East Pool committee pulled this scheme to pieces in the best way they possibly could. They made counter-proposals, and each agreed to exchange copies of their Memorandums. There was a good deal said about the application to have an agreement for the payment of the pumping charges, to which East Pool offered great objection, and seemed to regard it as an insult to be asked to do it. He (the Chairman) pointed out that he was responsible for the sending of it. He told them that if an agreement had been sent to him of which he did not approve he should have written back and said so, and asked for a rectification of any objectionable features. He asked them, however, to acknowledge for what they considered they were liable under the pumping arrangement, and the letter he had received from Mr. Branwell was:—"It is understood that the £170 per month agreed to be paid Wheel Agar adventurers by the associated mines for pumping charges will date from May 19 to July 31st." This letter did not say anything about who was liable for any breakages or anything that took place in the working of the machinery. However, that remained open, and it was for the shareholders to see if they could offer any advice to the committee. The other letter from Mr. Branwell was as follows:—"The following suggestions were made at a conference of the Wheel Agar and East Pool committees by East Pool committee. (1) That the two engines should be worked at the joint expense of Wheel Agar, East Pool, &c. (2) That in exchange for Wheel Agar plant and sett 600 shares in East Pool shall be allotted to Wheel Agar adventurers, or that (3) East Pool shall buy Wheel Agar sett and effects for £2500, the lords consenting to communication between the two mines." He (the Chairman) had no doubt the price of Wheel Agar would be more than £5 10s. a share if they were amalgamated on the suggestion the committee had made.

Replying to Mr. W. H. RULE, the CHAIRMAN said under their scheme he should have to take up 125 shares at £5 10s. a share, and Mr. Hamilton would have to take up 22 at the same price.

After a lengthy discussion Mr. H. P. VIVIAN proposed a resolution leaving the whole question of the desirability of sinking Fortune shaft and any other matters to the committee.

Mr. W. H. RULE seconded, and the motion was carried.

A vote of thanks to the Chairman concluded the proceedings.

LEVANT.

Loss of £160.

A 16-weekly meeting of the Levant adventurers was held on Tuesday, the parser, Major R. WHITE, C.C. presiding.

The CHAIRMAN said the labour cost was about £70 more than last time. They took on a few men from Botallack. There was only one copper sampling. The copper sampled on Monday week will be sold on Thursday. After consulting Mr. Field and Captain Frank Oats he charged £1250, which was thought to be one-half, but now he estimates the copper worth close on £3000. After a short discussion, the Chairman read the agent's report:—

North and south lode (submarine): The 312 level west on south lode has been driven through about 32 fathoms of good payable ground, and is now worth £20 a fathom for copper. Driving at £7 15s. The slopes in bottom of this level are worth £18 per fathom. Stopping at £5 5s. We have five slopes in the back worth £18 per fathom for copper. Stopping at £5, and three slopes worth £7 per fathom for tin and copper. Stopping at £2 15s. The 290 west on south lode driven through about 65 fathoms of good payable ground. Worth £12. Driving at £9 10s. Winze in bottom of this level worth £70. Sinking and stopping at £2. Stopping back of level average £16 a fathom. Stopping at £5 10s. The 275 west on the south lode £7. Driving at £7 5s. The slope in bottom £10. Stopping at £4. Slope in back £3. Stopping at £2 15s. 255 west on south lode worth £4. Driving at £7 15s. Slopes in back £2, stopping at £2 15s. We have just started to drive west on a guide at this level, which will cut the north lode, at £5 1s. per fathom. We are making preparations to fix an engine at this level about 150 fathoms west of submarine shaft, where we have an air winch working, and by so doing we shall not only be able to compete with more stuff at a greater depth, but reduce the expense of tramming. 250 level west of crosscourse on south lode £5, driving at £7 15s.; slopes in back of this level worth £8, stopping at £2 15s. 230 east of crosscourse on south lode £5, driving at £7 5s. Slopes in back of 240 east of crosscourse on south lode (east) average £7, stopping at £2 10s. Slopes in back of 230 west of crosscourse on south lode average £4 10s., stopping at £2 10s. 230 west of crosscourse on south lode £11, driving at £9. Slopes in back of this level average £11, stopping at £4 15s. Slope in back of this level east of crosscourse on south lode £5, stopping at £2 15s. 63. In about six weeks' time we shall be in a position to put a pony at this level to do the tramming. 210 west of crosscourse on south lode producing a little tin, but not sufficient to value, driving at £7 15s. 210 level west on branch £18, driving at £8 15s. The 200 level east on south lode £8, driving at £8 15s. Slopes in the back average £10, stopping at £2 15s. 62. 198 west on branch £2, driving at £7 15s. Slopes in the back of this level average £7, stopping at £2 10s. 170 west on branch £5, driving at £8 15s. 64. Slopes in back of this level average £5, stopping at £2 7s. 6d. 155 west on branch £1, driving at £2 10s. We have driven in ends for the past 18 weeks 99 fathoms 0 foot 3 inches, and are now driving 14 ends by 55 men and seven boys, and we have 191 men and 10 boys working in slopes, winzes, and rises. We have 22 men and seven boys working in 167 pitches, varying from 8s. to 15s. in the £. Total employed on tubwork and tribute—279 men and 31 boys. Total employed in every department underground—329 men and 55 boys. Our tin is a little fallen off; copper is increased. All we want is a better price to give profit to the adventurers.—MADRON TREKATH, SAMPHON MURRIE, JOHN WHITE.

Replying to an ADVENTURER the Chairman said the average price of tin had been £36 2s. as compared with £37 2s. 6d. during the last 16 weeks.

Mr. HOLMAN: If there is no falling in the price of tin we ought to be able to hold our own next time.

The CHAIRMAN: I hope we shall be able to do more than that.

Mr. H. OLDS asked why the copper refuse from the stamps was not sold.

The CHAIRMAN replied that it would be better to wait until copper fetched a better price; to sell it at the present time would mean a loss.

Mr. P. OLDS (Trellard) remarked that a large amount was going over the cliff. There was about three or four thousand tons of it, and it ought to be sold.

Mr. H. OLDS: If we can get 4s. a ton for it that would bring us in £200, if not £300.

Mr. HOLMAN: Better sell it by tender.

Mr. JAMES: If we have mineral that is valuable going over the cliff there can be no harm in selling it.

The CHAIRMAN said he had an enquiry for the price of 500 tons of the stuff from Mr. Crystal, of Falmouth. He would sell it in the

ordinary way. They had had a lawsuit once, and he did not want another.

Mr. COLENSO moved and Mr. HOLMAN seconded, that the accounts be passed, and the motion was carried.

Mr. H. OLDS complained about the delay in getting the new lease. He believed Mr. Berryman and Mr. Borlase did their duty and were above suspicion, but he believed they were in the hands of some other solicitor. Mr. Robins might be in the dark, but the Levant shareholders would not be kept in the dark long.

The CHAIRMAN said he was as anxious about the matter as anyone; the lease was at present in the hands of a Bristol lawyer.

FRASER AND CHALMERS, LIMITED.

An improved outlook—American trade brightening.

The ordinary annual general meeting of the shareholders in Fraser and Chalmers (Limited) was held on Monday, at Winchester House, the chair being occupied by Mr. Julius C. WERNHERR.

The SECRETARY (Mr. Walter McDermott) read the notice convening the meeting.

The CHAIRMAN said: Gentlemen—I am sorry to say that our report is again an unfavourable one, and that we cannot accompany it with the announcement of a dividend. Still, I think that, on examining the accounts closely, you will find that we have strengthened our position as a financial concern very considerably. Not only have we reduced our capital, as suggested at the last meeting, but we have, besides, written off a very large amount—£15,000—on our profit and loss account, as we hold that, unless a profit is divisible, it is very little use to show it on the balance-sheet. We decided, therefore, to write it off, together with the £210,000 of capital, by which we depreciated in our books in London our holding in the American corporation. I indicated at our last meeting that our expectations from America for the year 1894 were not very great, and the result, unfortunately, confirms what I stated then—that we could only hope to hold our own, and not to make very much progress. I am happy to say that since the close of the year affairs in America have looked a little better, and we hope that with increased orders there will be work for all the many concerns which have been, more or less, only half-working during the crisis, and that we shall get a fair share of business at fair prices. We have done in America about the same as in the year before, and acting on the same principle as we acted then, we have written down everything we thought bad or doubtful. We have done so largely in the two years, and I hope that when the days of prosperity return we shall not have to limit our profits by such amount, but that the whole sum will be available for distribution, or rather, remittance to the English company, which will make the division. Our disappointment has been almost greater at the Erith Works. We had enough work to do, but I can only put it down to, perhaps, inexperience on the part of the directors and staff in cost of manufacture that the business has not been carried out so successfully as we would wish. I mean to say we are quite a new concern, having been only fully at work, really, a year and a-half, and, in the nature of our business, people coming to us for special machinery ask for an estimate. It is extremely difficult—almost impossible—to form an exact idea of cost, and, therefore, I am not in the least afraid to confess our deficiency in this respect. To make these estimates without actual experience is to run a certain amount of risk. Consequently, we had to give a great many complicated estimates and, at the same time, to face competition, if we wanted to have the orders we had to be reasonable, and run a certain amount of risk. We have run this risk, and the consequence is our profit is smaller than it was last year. Still, I hope the experience we have gained is not lost and will bear good fruit in the future. We are now on quite a different footing to what we were last year, and I think I can confidently state that we have very fair prospects this year. We are full of orders, and as far as I can judge, and as far as the technical management assures me, all the orders we have on our books show a reasonable and fair profit, consequently I hope when I have the honour of meeting you again to be able to give you a better account than we can of the past year. The confidence of the directors in the business is just as great as it was before, in spite of all the difficulties, and some of us have even considerably increased our share holdings during the past and current years. The preference share issue which we suggested to you last year appears in the balance-sheet of 1894, with 11,750 shares taken up out of 21,000. This shows that, unfortunately, the shareholders did not respond very freely to our call, but I am happy to say the directors again came forward, and, aided by their friends, took up the whole unapplied balance. There is no intention at present to make any further call upon the preference shares. Only £1 has been called up, and there is still a balance of £2. We find it cheaper to borrow the money than to have another call. You will find in the balance-sheet an item of £25,416, which is really a banker's loan and interest added. I may state that this amount has since been reduced, and we hope to reduce it further during the current year. This indicates that we are not very hard pressed financially. I do not think the balance-sheet itself calls for many remarks. The items are not very different to those of last year, except, unfortunately, the total of our profits. I think our thanks are due, in spite of the small results, to the management in Chicago and Erith, and I shall be very glad if you are of the same opinion. It is not always results which show what work has been done, but if the results follow, as we believe we, will prove to you yet, that our company is a well-managed one, and that, in spite of all the exceptional difficulties, everything has been done, and will be done in the future, to make it a successful concern. Gentlemen, with these few remarks, and subject to any questions you may wish to ask me, I propose "That the directors' report, balance-sheet, and accounts, as presented, be and are hereby received, approved, and adopted."

Mr. C. E. ATKINSON seconded the motion, saying that the prospects for the current year were certainly much brighter than this time last year. It was divulging no secret to make known that their trade up to the present was at least one-third in advance of that of last year, and that the standing expenses of the company would not increase materially with the increase in trade. The increase of profit would, therefore, swell the profit and loss account, and he was confident that the balance-sheet next presented to the shareholders would be of a much more satisfactory character.

The motion was then put and carried unanimously.

On the motion of Mr. ENGLISH, seconded by Mr. BAYLISS, the retiring directors—Messrs. J. C. Wernher and Hamilton Smith—were re-elected.

The auditors—Messrs. Deloitte, Dever, Griffiths, and Co.—were also reappointed.

A vote of thanks to the Chairman, directors, and staff concluded the proceedings.

THE RED MOUNTAIN MINING DISTRICT.—The greater portion of the Red Mountain Mines belong to English syndicates, with such titles as the New Gaston Company (Limited), the Yankee Girl Silver Mines (Limited), the American Belle Mines (Limited), including the Silver Bell, Hudson, and others. The Gaston, Genesee-Vanderbilt, and American Belle are the principal shippers of the district at the present time. If silver was selling at an honest price there would be a score of great producers pouring out their wealth in and around these diggings. James K. Harvey is the local manager of the American Belle, Gaston, Silver Bell, and others of these English properties. Something is being done on the Yankee Girl, and the water pumped out, timbers put in, and the mine being made ready to open her treasures vault. Considerable prospecting will be done in the district this season, and a dozen new properties will be added to the grand aggregate.—Gaston Correspondent of the *Mining Review*, Col.

—Allotment letters in the ORIENTAL GOLD MINING COMPANY OF INDIA (LIMITED) have been posted.

VICTORIAN GOLD MINING.

By THOMAS CORNISH, M.A.M.E. Author of "Our Gold Supply," &c.

THE eastern belt of quartz lodes in the Ballarat district has been developed but little except at Egerton and Gordon's. The past successes of the mines on those fields, especially the Egerton and Black Horse Companies, are likely to lead to larger developments on that line of lodes. The private property between the Egerton and Gordon gold fields has been acquired by the Gordon and Egerton Proprietary with the intention of developing not only the lodes traversing the length of the estate some two miles, but also to work the alluvial lead crossing the lines of lodes. The operations of this company are likely to be attended with important results.

North lies the Daylesford gold field, formerly known as the Jim Crow ranges, in which is nestled the pretty and thriving town of Daylesford. The mining developments here have mostly been carried out by private enterprise of local people. The Cornish reef was the first discovered of any importance (then the Collier's) in the early '50's, and crude appliances were first used to get the gold from the quartz. An iron-shod dolly, worked by a spring pole, was the first method of crushing available; then came a Chilian mill driven by steam-power. Quicksilver was only obtainable in small quantities at 1s. 6d. per ounce. The introduction of the Chilian mill was a noted event of the day, and the proprietors were guaranteed £500 in crushing at £5 per ton. A reef was discovered at Specimen Hill, which has since proved to be a continuation of the Cornish, and here the stone was among the richest ever found at Daylesford. The country was heavily timbered, and so dense that the diggers were compelled to blaze the trees to find their way back to the canvas and bark townships scattered along Spring, Sailor's, and the numerous blind creeks, the upper tributaries of the Loddon, and the sites of the great alluvial rush. As the pioneers cut their way through scrub and undergrowth they found the hill covered with quartz, large quantities of which gave 12 ounces to the ton after losing one-third of the gold from the primitive crusher. The Cornish Company was working over 30 years, and paid over £150,000 in dividends before incorporation with the North Cornish Company, which has also had a successful career for the last 10 or 12 years since it started, having, on a very small capital of £40,000, paid in dividends over £160,000. Various other reefs have also been discovered in and around Daylesford, some lately giving sensational yields. The reefs generally are of moderate and low grade ore, varying from 5 to 12 dwts. per ton, in some places of good width and easily worked, and there is an extensive field for miles around for profitable mining, but the value of the field is, comparatively speaking, little known. From Daylesford can be seen a series of mountains and ranges, including Mount Tarrangower, Mount Alexander, and Franklingford; to the south the great dividing range with Mount Macedon, westward Smeaton hill and Mccrookyle, Spring hill to the south-west, and as far as can be seen, the Pyrenees. It is a centre of great mineral wealth, and has much rich agricultural land in its neighbourhood. It is connected by railway to all the main lines of the colony, and, if its gold resources be more energetically developed, will become again a flourishing gold field. Economical mining has been a chief feature of the success of the North Cornish Company, and a good system of concentration by the Frue vanners and treatment of pyrites.

A rich lead of alluvial was worked through the township called the Wombat lead, and at one point under the Wombat hill the lead was cut off by a wall of basalt. After considerable labour in sinking and driving in this basalt dyke, which appeared to have been forced up from below, and cut the gutter across, the lead was again found and worked for some distance with good results in private property, but ultimately got lost, and local enterprise and capital has not been as yet strong enough to systematically search for it. Mr. Reginald Murray, the Government Geologist, is of opinion that its outlet is near Glenlyon, running into the Loddon.

North-east from Egerton is the Blackwood gold field, also situated in a very mountainous district, traversed by numerous quartz lodes, some of which have been worked with success—notably the Sultan, True Blue, Faugh-a-Ballagh, the Morning Star, the Union and Snake gully lines of reefs. Most of these reefs are now standing idle and neglected for want of capital and energy to go into a more systematic development of the mines and careful treatment of the ores, and few gold fields in Victoria offer better opportunity for profitable mining. I attended the rush on the discovery of the field in 1855, when the ranges were covered with dense forest trees of immense height and size. The work then was in the gulleys for the alluvial deposits, some excellent finds were made, but a terribly rough crowd monopolised the best parts. The "Tipperary boys" who left Ballarat in a hurry after the riots, mustered here in full force, and swarmed the rich spots in such numbers and with such violence that little or no protection could be afforded. Numbers were mobbed or severely handled who had a claim there rowdy jumpers fancied unless they gave it up to them. The forest surrounding this field appeared almost impenetrable at the time, and carriers had literally to cut their way through the dense undergrowth and big trees. Tracks were cut around and along the sides of mountain ranges in places so steep that men would have to hold on occasionally with ropes to prevent the loaded drays from toppling over. Carriers had to help each other up the worst places. I remember going down the last steep point into the new camp at Red Hill. Young trees had to be cut down and attached to the drays to be weighted with men to prevent a too-violent rush amongst the tents. Nor am I likely ever to forget the great storm of that first night at Blackwood. As it was getting dusk, the rain falling and wind rising, there was no time to pitch the tent in the ordinary way, but we had to sling it between two trees and get under it for shelter as best we could and lie on the wet ground till morning, when a scene of wreckage was presented to view; damaged tents and temporary buildings blown down, trees uprooted and branches torn off falling amongst the scattered tents. Several men were killed and many injured. Myself and partners narrowly escaped the falling trees, and had only a drenching after the previous heavy day's work getting into camp.

The alluvial workings were confined mostly to the narrow gulleys between the mountain ranges and a few points of shallow surfacing. I did not stay long on the field then, but left for Egerton, and then afterwards Oronook.

Blackwood has, however, proved itself a great quartz reefing field, but the bad roads and difficulty of access have militated against its success. In the Main Larderberg creek there is a plentiful supply of water, and some mills have been driven with water-power. Where this can be applied and greater attention given to the concentration and treatment of pyrites, the reefs at Blackwood should be worked to great depth with handsome profits. Now that the Shire Councils have improved the roads, and railway stations are at Ballan on one side, and at Daylesford and Trentham on the other, access has become easy, and Blackwood offers a good field from its past good prospects for an

early revival of very profitable quartz mining, and is capable of supporting a large mining population. South-east from Egerton is the Steiglitz gold field, opened in 1855 with some very rich discoveries in the surface outcrops; the veins were narrow on the surface and in hard country, but widen in depth; like many other gold fields, it has had several revivals, and during the last few years it has undergone an important revival. By the steady perseverance of numerous speculators from Ballarat and other places, some valuable discoveries at good depths have been made, and several rich dividend mines opened out in excellent manner. I visited the field last year after many years' absence, and found the field well occupied for 5 or 6 miles in length and about a mile wide, on a belt of lodes that are proving highly profitable at different points, notably the United Albions, the Waterloo, and the New Mariners, under Mr. Adam Clinton's management, is a very successful mine, while many others are rapidly coming into favourable notice. I visited the underground works of the United Albions and New Mariners, 3 miles apart, and was pleased with the permanency and value of the lodes, and am satisfied that Steiglitz is a great gold field, and worthy of special attention.

METAL CIRCULARS.

Messrs. JAMES LEWIS and SON'S Mid-Monthly Report on Copper, dated Liverpool, June 17, states:—Whereas the Board of Trade returns for the first five months of this year show decreased imports of 4402 tons, and increased exports of 3665 tons—together 8067 tons—compared with the same period last year, the public stocks in England and during this period this year have decreased only 1128 tons, while last year they increased 2779 tons. It is, therefore, evident that smelters' and other private stocks in England have supplied the difference of about 4000 tons, and must consequently be reduced to this extent, and probably to a greater extent, as the home consumption must have been considerably larger this year than last. American shipments to Europe are 7079 tons less this year than last. The Post Office trunk telephone lines from London to the chief cities of the United Kingdom, inaugurated on the 12th instant, consist of 10,475 miles of high conductivity copper wire, weighing 2829 tons. Under measure of the realisation of prompt falling due and "Bear" selling, the market for good merchantable copper receded from £43 15s. on the 4th to £42 3s. 9d. on the 11th instant. The lower prices inducing purchases by consumers, and to cover previous "Bear" sales, with less copper offering, a reaction to £43 on the 14th instant followed, but 3s. 9d. of this was lost on the 15th. The closing value to-day is £42 11s. 3d. for cash and £42 18s. 9d. for three months' prompt, on the increase of the stocks due to the arrival of a large cargo from Boleo, which is sold but not yet delivered. The quotation in New York remains firm at 10-62½ to 10-75 cents per lb. for Lake. Recent shipments to Europe include Lake copper sold some time ago for delivery on the opening of the canal navigation. The home demand continues very active, and but little offers for early delivery. Purchases have been made at 10-75 cents for delivery in the autumn.

	May.	January to May.	12 months.
European production...	1895. 7,470	1894. 8,013	1895. 35,519
American production...	13,260	12,542	58,971
Do. Imports...	1,800	1,340	5,979
Do. Exports...	5,430	6,140	24,714
United Kingdom...			1,330 tons.
France...			1,225 "
Germany, Holland, &c.			2,850 "
Mexico			24 "
			5,430 tons.

Quotations to-day are:—Chili bars and good merchantable copper £42 11s. 3d. for cash, buyers, and £42 18s. 9d. for three months' prompt, sellers. English best selected ingot £46 to £46 10s., and tough cake £45 to £45 10s. per ton. Ore of 20 per cent. 8s. 31, regulus and matte 8s. 61. per unit.

Messrs. HENRY BATH and SON'S Copper Report, dated June 18, has the following:—The Chili charters for the first half of June are advised as 1300 tons. The latest exchange is 17½. From the opening of the fortnight there was an almost unbroken fall in the value of G.M.B. copper from £43 7s. 6d. to £42 3s. 9d. cash. A rally then ensued, and on previous sellers becoming buyers, and several good orders coming into the market, the price rose to £43 on the 15th instant. On the 14th it relapsed to £42 16s. 3d., and on the 17th to £42 11s. 3d. owing to the increase in the total visible supply and the heavy shipments from the United States for the first week in June becoming known. About 1100 tons of the increase is accounted for by the arrival at Swansea of a cargo of Boleo matte and bars, which is already sold for consumption. This morning the price fell to £42 5s., but closed 2s. 6d. better. The shipments from the United States for the first half of June are cabled as 3720 tons. It is evident that there is something abnormal in these figures, as such a rate could not possibly be maintained. The arrivals and deliveries at Hamburg, Rotterdam, and Antwerp during the past fortnight amount to about 1493 tons fine. Imports of American copper into England have been 1045 tons, and into France 80 tons, or 1125 tons against 2610 tons last year. Total actual deliveries for the fortnight have been 3344 tons against 4904 tons imports. Stocks have increased 1560 tons. Total visible supply shows 56,171 tons against 54,211 tons last fortnight. The only transaction in furnace material that we can hear of is 110 tons of Portuguese ore, to arrive, on private terms.

England and France.	Imports.	Deliveries.	Stocks.	Atfloat & Chartered for supply.	Total visible supply.
Chili copper at Liverpool, Swansea, and in France...	875	452	40,492	3550	44,012
Foreign copper in London, chiefly Australian and Japanese...	377	471	4,045	1100	5,145
American copper at Liverpool, London, and Swansea...	1045	1222	2,719	—	2,719
Other copper at Liverpool & Swansea...	2457	1089	2294	—	2,344
English copper at Liverpool & Swansea...	—	—	—	—	—
American copper in France...	80	200	887	—	887
Other copper in France...	70	30	194	—	194
Tons fine copper during the fortnight...	4904	3344	51,511	4850	56,171
Against tons on June 5, 1895...	3189	2577	40,971	4250	44,711
Against tons on May 17, 1895...	2803	2743	40,295	4450	44,749

1894. 1893. 1892. 1891. 1890. 1889. 1888. 1887. 1886.

Total visible supply
June 17 40,153 40,018 55,682 57,470 78,358 114,087 71,312 53,171 50,505
Price of Chili bars same date:—£37 18s. 9d., £44 11s. 3d., £45 12s. 6d., £46 10s. 3d., £46 11s. 3d., £46 12s. 6d., £46 13s. 9d., £46 15s. 3d., £46 16s. 6d., £46 18s. 9d., £46 20s. 3d., £46 21s. 6d., £46 23s. 9d., £46 25s. 3d., £46 26s. 6d., £46 28s. 9d., £46 30s. 3d., £46 31s. 6d., £46 33s. 9d., £46 35s. 3d., £46 36s. 6d., £46 38s. 9d., £46 40s. 3d., £46 41s. 6d., £46 43s. 9d., £46 45s. 3d., £46 46s. 6d., £46 48s. 9d., £46 50s. 3d., £46 51s. 6d., £46 53s. 9d., £46 55s. 3d., £46 56s. 6d., £46 58s. 9d., £46 60s. 3d., £46 61s. 6d., £46 63s. 9d., £46 65s. 3d., £46 66s. 6d., £46 68s. 9d., £46 70s. 3d., £46 71s. 6d., £46 73s. 9d., £46 75s. 3d., £46 76s. 6d., £46 78s. 9d., £46 80s. 3d., £46 81s. 6d., £46 83s. 9d., £46 85s. 3d., £46 86s. 6d., £46 88s. 9d., £46 90s. 3d., £46 91s. 6d., £46 93s. 9d., £46 95s. 3d., £46 96s. 6d., £46 98s. 9d., £46 100s. 3d., £46 101s. 6d., £46 103s. 9d., £46 105s. 3d., £46 106s. 6d., £46 108s. 9d., £46 110s. 3d., £46 111s. 6d., £46 113s. 9d., £46 115s. 3d., £46 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£46 895s. 3d., £46 896s. 6d., £46 898s. 9d., £46 900s. 3d., £46 901s. 6d., £46 903s. 9d., £46 905s. 3d., £46 906s. 6d., £46 908s. 9d., £46 910s. 3d., £46 911s. 6d., £46 913s. 9d., £46 915s. 3d., £46 916s. 6d., £46 918s. 9d., £46 920s. 3d., £46 921s. 6d., £46 923s. 9d., £46 925s. 3d., £46 926s. 6d., £46 928s. 9d., £46 930s. 3d., £46 931s. 6d., £46 933s. 9d., £46 935s. 3d., £46 936s. 6d., £46 938s. 9d., £46 940s. 3d., £46 941s. 6d., £46 943s. 9d., £46 945s. 3d., £46 946s. 6d., £46 948s. 9d., £46 950s. 3d., £46 951s. 6d., £46 953s. 9d., £46 955s. 3d., £46 956s. 6d., £46 958s. 9d., £46 960s. 3d., £46 961s. 6d., £46 963s. 9d., £46 965s. 3d., £46 966s. 6d., £

Uruguay Three and a Half per Cent., $\frac{1}{2}$ —Lower: Argentine Six per Cent., $\frac{1}{2}$.
BANKS.—Higher: Imperial Otter, $\frac{1}{2}$; London and Midland, $\frac{1}{2}$.
District, $\frac{1}{2}$ —Lower: Bank of Liverpool, $\frac{1}{2}$; Manchester and Salford, $\frac{1}{2}$.

INSURANCE.—Higher: British and Foreign Marine, $\frac{1}{2}$; London and Lancashire, 3-16; and Union Marine, $\frac{1}{2}$ to $\frac{1}{2}$ —Lower: Commercial Union, $\frac{1}{2}$; Guardian, $\frac{1}{2}$; National Boiler, $\frac{1}{2}$; Royal, $\frac{1}{2}$.

MINES.—Higher: Chartered, $\frac{1}{2}$; Cape Copper, $\frac{1}{2}$; Consolidated Gold Fields, $\frac{1}{2}$; De Beers, $\frac{1}{2}$ —Lower: Londonderry, 6d. to 2s.; Rio Tinto, $\frac{1}{2}$.

TELEGRAPHS.—Higher: Anglo-American Preferred, $\frac{1}{2}$ —Lower: Western and Brazilian Ordinary, $\frac{1}{2}$.

COAL, IRON, &c.—Lower: Bolckow Vangban, £20 paid, $\frac{1}{2}$; ditto, £12 paid, $\frac{1}{2}$ to $\frac{1}{2}$; Ebbw Vale, $\frac{1}{2}$.

BREWERS.—Higher: Boddington's, $\frac{1}{2}$; Chester's, $\frac{1}{2}$; Parker's, $\frac{1}{2}$ to $\frac{1}{2}$.

MISCELLANEOUS.—Higher: Armitage's, $\frac{1}{2}$; Backpool Tower Preference, 6d. to 3s.; Brooke Bonds, $\frac{1}{2}$; Bryant and May, $\frac{1}{2}$; Henry's, 1-16 to $\frac{1}{2}$; Howard and Bullough, $\frac{1}{2}$; Imperial Continental Gas, 2; Liverpool United Gas A. 1.—Lower: Backpool Tower, Ordinary, 6d.; Eastmans, $\frac{1}{2}$; Kellner Partington, 1-16; Palace of Varieties, 1-16; Canal Preference, 1 16.

LATER (4 P.M.).—The feature to-day has been the enquiry for miscellaneous shares, more especially those of fair dividend-paying companies, but the more speculative markets have again proved very idle, and Americans and Canadians have again drooped fractionally.

EDINBURGH.

Messrs. THOMAS MILLER and SONS, Stock and Share Brokers, 69, Hanover-street, Edinburgh, report as follows under date of June 20:—
Scotch railway ordinary stocks have, since last report, been very inactive. Preference stocks continue in demand. Bank stocks have in several instances shown strength. Bank of Scotland has risen from 327 to 332, British Linen from 390 to 394. Commercial from 63 to 69, National from 338 to 341, Union from 20 to 20 $\frac{1}{2}$. In insurance shares, Caledonian, London and Lancashire, and Scottish Metropolitan are slightly higher, while Globe, Mercantile, and Standard Life are somewhat lower. Commercial Union have declined from 36 to 35 $\frac{1}{2}$, Scottish Life from 42 to 37 $\frac{1}{2}$, and Scottish Union "A" from 88 to 87. A brisk business has been done in British South Africa shares which have risen from 82 to 87. In mining shares, Lethian Coal Preference have fallen from 8 to 7 $\frac{1}{2}$. Steel Company of Scotland from 52 to 50 $\frac{1}{2}$, Rio Tinto from 16 to 15 $\frac{1}{2}$, Broken Hill from 43 to 42 $\frac{1}{2}$, Londonderry from 16 to 14 $\frac{1}{2}$, 6. Pumphreton Oil shares have advanced from 8 to 13 to 14. Young's Paraffin from 41 to 44, Linlithgow have fallen from 38 to 35.

HARVEY STEEL COMPANY OF GREAT BRITAIN (LIMITED).—The extraordinary general meeting of the shareholders was held at the offices, 23, Victoria-street, S.W., on Thursday June 10, to confirm the resolution passed at a meeting held on the 30th ult., making certain alterations in the Articles of Association, in order to meet the requirements of the Stock Exchange Committee with a view to obtaining an official quotation. The Chairman informed the shareholders that arrangements under license from the company had now been completed for the application of the Harvey process to rivets, stamps, taps and dies, tools, and many other articles produced by various manufacturers.

—The LANTARO NITRATE COMPANY (LIMITED) notifies that coupons of the Five per Cent. Debentures due July 1 will be paid at the City Bank, 5, Threadneedle-street, E.C.

THE MAY OUTPUT OF THE INDIAN MINES.

DURING last month the output of the producing mines in Mysore, India, was 20,797 ounces, showing an increase of 398 ounces as compared with the preceding month, and an increase of 4254 ounces as compared with the corresponding month of 1894. The production since the beginning of 1891 has been as follows:—

	1891.	1892.	1893.	1894.	1895.
Ounces.	Ounces.	Ounces.	Ounces.	Ounces.	Ounces.
January ...	10,180	11,674	16,844	17,026	19,672
February ...	10,121	11,780	16,656	15,803	19,358
March ...	10,117	11,579	17,463	16,080	20,267
April ...	9,392	11,813	18,287	15,551	20,359
May ...	10,509	12,488	17,922	16,543	20,797
June ...	10,746	11,847	16,879	15,459	—
July ...	11,097	13,277	16,676	18,271	—
August ...	11,222	14,854	16,692	19,073	—
September ...	11,396	15,529	17,060	18,911	—
October ...	12,095	15,922	17,440	19,119	—
November ...	11,667	15,942	17,557	18,825	—
December ...	11,589	16,435	17,659	19,068	—

Total ... 130,137 ... 163,140 ... 207,135 ... 209,729 ... 100,483
The outputs of the individual mines for the past six months have been:—

	Dec.	Jan.	Feb.	Mar.	Apr.	May.
Ounces.	Ounces.	Ounces.	Ounces.	Ounces.	Ounces.	Ounces.
Oreogum ...	5,325	5,361	5,382	5,383	5,608	6,046
Mysore ...	4,880	5,191	4,953	5,435	5,478	5,453
Champion Reef ...	5,618	5,635	5,636	5,610	5,645	5,651
Nundydroog ...	3,106	3,143	3,058	3,163	3,160	3,178
Coromandel ...	—	—	217	—	—	—
Nine Reefs ...	—	147	146	200	220	203
Belagat ...	115	95	81	130	—	—
Mysore Reef ...	51	68	90	—	128	—
Mysore W. and Wynad ...	—	—	—	156	160	264
Terrakonda ...	—	32	52	—	—	—

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*Gaul (twin screw)	June 15	—	June 21	June 28
*Moor ...	—	—	July 5	July 6
*Athenian ...	—	July 3	July 6	July 13
*Mexican ...	—	—	—	July 20

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Harlech Castle (via Canaries)	July 5	July 5
Tantallon Castle (via Madeira)	July 12	July 12
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NOTICE IS HEREBY GIVEN, that the ORDINARY GENERAL MEETING of this Company will be held at the Cannon-street Hotel, in the City of London, on FRIDAY, the 28th day of June, 1895, at Twelve o'clock, noon.

To receive the reports and accounts.

To elect director and auditors; and for other general business.

By order of the Board.

I. CROCKER, Secretary.

Registered Offices:

6 and 7, Queen Street Place, London, E.C.,
18 June, 1895.

N.B.—The reports and accounts will be issued on 22nd inst.

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By Order of the Board,

18, Bishopsgate Street Within, E.C., J. TUCKER, Secretary.
18th June, 1895.

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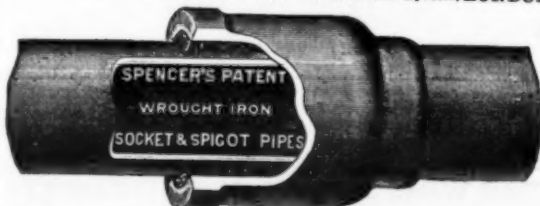
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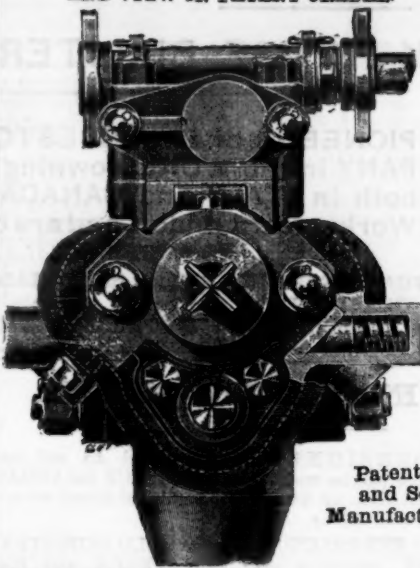
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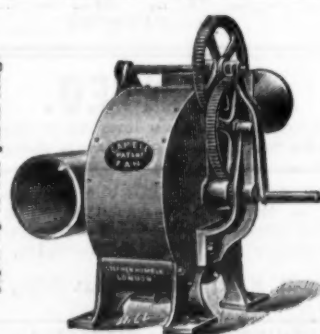
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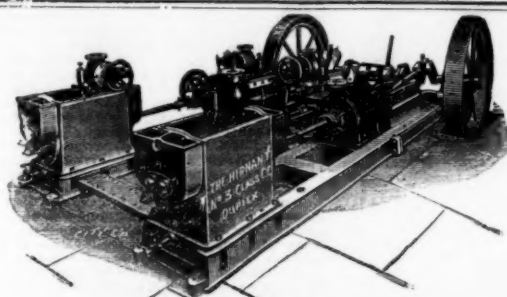
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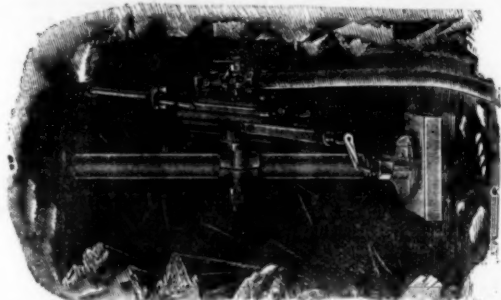
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Capacity in Tons of 2000 Pounds.

Size 0—2 to 4 tons per hour.	Size 3—10 to 20 tons per hour.	Size 6—30 to 60 tons per hour.
„ 1—4 to 8 „	„ 4—15 to 30 „	„ 7—40 to 75 „
„ 2—6 to 12 „	„ 5—25 to 40 „	„ 8—100 to 150 „
Passing 2½ in. ring, according to character and hardness of material.		

GREAT SAVING IN POWER. Adjustable to
any Degree of Fineness.

The principle involved in this Breaker acknowledged to be the greatest success ever
introduced into Stone Breaking machinery.

Send for Catalogue, containing over 500 references of Contractors, Miners, Railway
Companies, Cement Makers, etc.

By the use of this machine cubical road metal can be produced at a low cost.

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Simple, Durable, Compact, Dustless, giving a Finished Product direct from the Machine. The best Ore
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Ammonite is more extensively used than any other high Explosive in the principal fiery and dusty Mines in Great Britain.

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For full particulars apply to the Offices of the Company, 16, GREAT GEORGE STREET, WESTMINSTER.

Awarded the **ONLY** Gold Medal for Stonebreaker at the International Inventions Exhibition, in competition with all other makes.

THE BLAKE-MARSDEN 1884 Patent Lever Hand-Hammer Action Stonebreakers and Ore Crushers, NEW PATENT FINE CRUSHER OR PULVERIZER.

Fitted with Patent Reversible Cubing and Crushing Jaws in Five Sections, and with Surfaced Bores, requiring no White Metal in lining. Crucible Cast Steel Levers and Toggle Cushions, Brass or Gun Metal Bearings throughout.

OVER 5000 IN USE.

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The Fine Crusher we had from you in August last is an excellent pulverizer, and rapidly reduces hard material to a fine powder.

"The Pulverizer has now been working two months, and answers its purpose most satisfactorily."

"It is with the greatest satisfaction that we write these few lines in order to acquaint you that the 12x3 Pulverizer you provided us with, has quite fully given the results you represented to us, completely reducing our material to an impalpable powder at one operation. Should you refer any one to us we should have much pleasure in recommending the machine."

"I have great pleasure in bearing testimony to the merits and capabilities of your patent combined fine crusher and sieving apparatus. I have tried it on a variety of ores and minerals, and it pulverizes them with equal success. You can put in a small paving stone and bring it out like flour."

"In reply to your favour, I have much pleasure in informing you that the 12x3 Pulverizer we had from you is giving us every satisfaction. The material we are operating on is an exceptionally hard one. I am well satisfied with its working."

"Our experience is that the motion and mechanical arrangements of your machine are the best for pulverizing that we have ever met with."

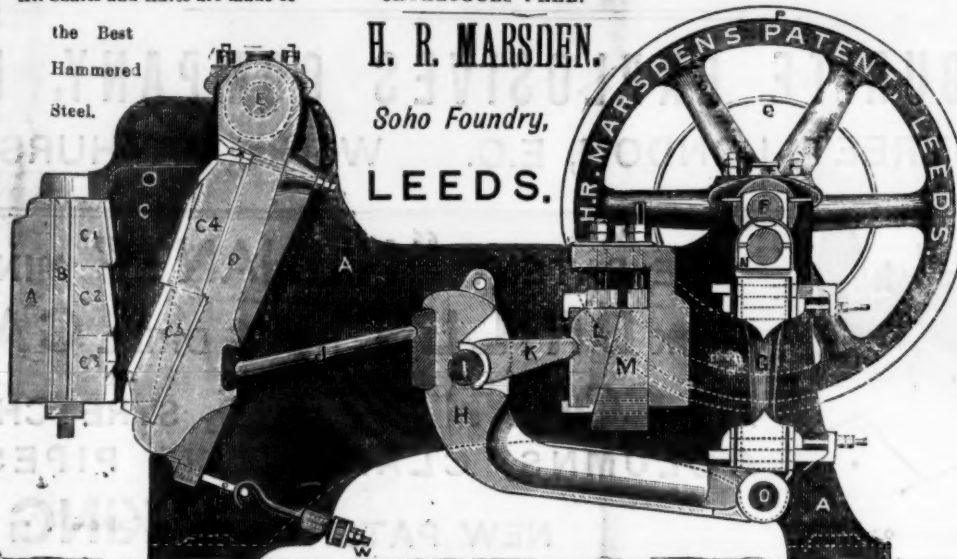
"The reports from our mines as regards the working of your Fine Crusher (20x5) recently supplied are very favourable, although we cannot quote you exact figures. On being got into position it was tried by hand, with the result that it made short work of the biggest pieces of ore we put into the hopper. You might say how long you would take to deliver another of the same size."

"As I once before stated, your machine is a perfect pulverizer."

"I am sure the machine will be a success, and a great one, and there is any amount of demand for such a machine. We can work it with 20 lbs. of steam and our engine, which is a 12-h.p., plays with the work, in fact we run the Stonebreaker and the Pulverizer both together with 35 lbs."

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STONEBREAKERS AND ORE CRUSHERS TESTIMONIALS.

"We have great pleasure in testifying to the efficiency of the 15 in. by 8 in. Lever Hand Hammer Motion Stone Breaker you supplied us with. We find that our 4-h.p. Engine with case drives it 250 revolutions per minute, and breaks six tons per hour of the hardest 'Diorite' Whinstone: the sample is much before any hand-broken we have ever got done. Our Mr. F. J. GRAHAM, C.E., who was Surveyor of Highways for ten years, before joining our firm, says: 'It is by far the most economical machine he ever had to do with; he had two of your former, and two of another firm's make; compared with these four machines your new patent gives the following advantages:—The horse-power required to drive is exactly 40 per cent. less. The sample of the broken macadam is so far superior to that broken by other machines, and even to that broken by hand that we can make no comparison. I is by far the best sample we have ever seen.'"

"I now order three of your Stone Crushers, 15 by 15, to be of your very best construction, and to include two extra sets of Jaws and Cheeks for each. The last two 24x13 machines you sent me, which are at work in this colony, are doing very well. You will soon find that the railway contractors will adopt your machines in preference to the colonial ones—two of which I have. I know other contractors have had as many as nine of them, which have not given very good satisfaction. Once they know of your machine thoroughly, I believe you will do a good trade with the colonies. For reference of the high character of your constructions you can refer to me as having used them with the very best results, both in New Zealand and this colony, and much prefer them to the colonial article, both in point of construction and less liability to go out of order. The material we are crushing is very hard blue stone, for railway ballast purposes. Push on with the order as quickly as possible; I do not think it necessary to have any engineering inspection. I have brought your machines prominently under the notice of all large contractors in this colony, likewise the Government. Many of the contractors have spoken to me in reference to their capabilities, and could only tell them that they are by far and away the best and most economical I ever used. The very fact of me having purchased eleven from you at various intervals and various sizes, and two above 12 years ago, and having tried all the other makers is sufficient guarantee of the capabilities and the working of your machines. Yours to every way surpass all others."

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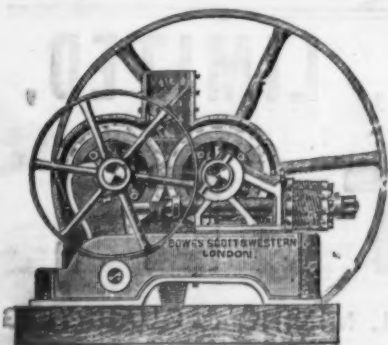
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